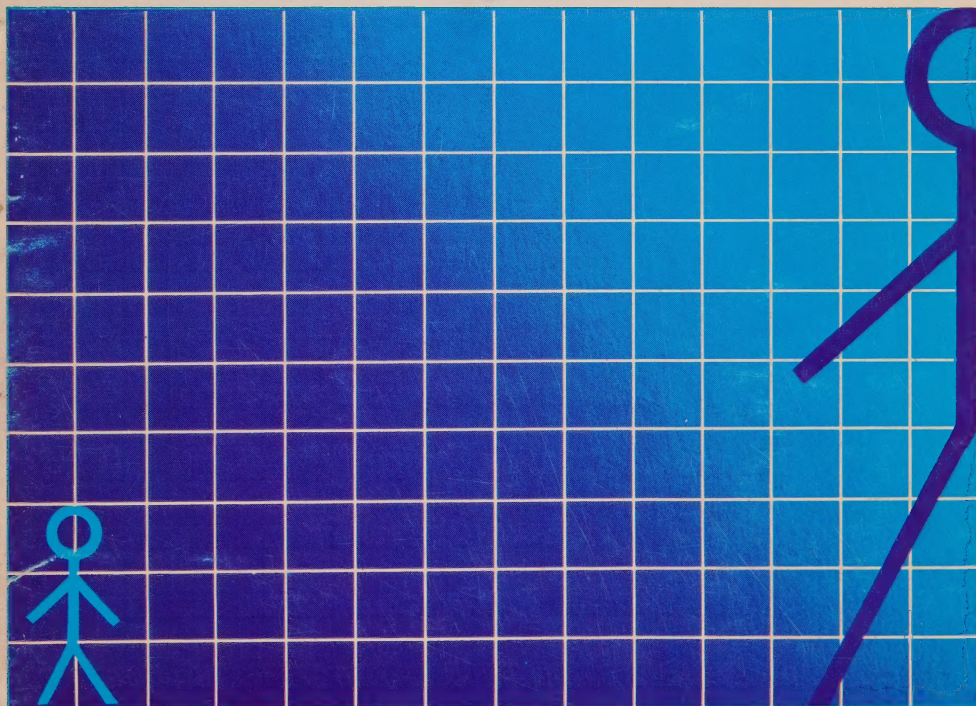


workers with long hours



STATISTICS CANADA

Labour Division

Manpower Research and Development Section

SPECIAL LABOUR FORCE STUDIES

Series A, No. 9

WORKERS WITH LONG HOURS

by

Nand K. Tandan

Published by Authority of
The Minister of Industry, Trade and Commerce

Avril 1972
1005-522

Price: 75 cents

Statistics Canada should be credited when republishing all or any part of this document

Information Canada
Ottawa



FOREWORD

This is the ninth in a series of research studies concerned with the analysis of selected economic, social or demographic aspects of the working population in Canada. Much of the statistical information on which this study is based was derived from supplementary questions attached to the monthly survey of the labour force conducted by the Labour Division of Statistics Canada.

The study was prepared under the general supervision of Helen Buckley, Co-ordinator, Manpower Research and Development Section, Labour Division.

WALTER E. DUFFETT,
Chief Statistician of Canada.

TABLE OF CONTENTS

Chapter	Page
I. Introduction	9
II. Hours of Work and Hours of Leisure	14
III. The Regular Long-hours Workers	24
IV. The Economics of Overtime and Multiple Jobholding	33
V. Overtime Workers	37
VI. Multiple Jobholders	46
VII. Summary and Conclusions	56

Appendices:

A. Regression Analysis for Cyclical Behaviour of Long-hours Workers	60
B. Explanatory Note and Definitions	63
C. Detailed Tables	66

List of Tables

Table	
1A. Employed by Hours Worked in June 1967	9
1B. Employed by Hours Worked in June and 12-month Average 1967	9
2. Standard and Actual Workweek in Canada in Selected Years, 1947-67	16
3. Percentage of Employees with Standard and Actual Workweek of More Than 45 Hours in Selected Years, 1952-67	17.
4. Paid Statutory Holidays for Office and Non-office Workers in Manufacturing, 1951 and 1967	19
5. Paid Vacations for Office and Non-office Workers in Manufacturing, 1951 and 1967	20
6. Employed Workers Not at Work and on Vacation in Canada in Selected Years, 1947-67, Annual Averages	21
7. Average Number of Expected Years in Market and Non-market Activity of Canadian Male Aged 14, 1921-61	21
8. Paid Workers at Work During the Week Ending June 17, 1967, by Hours Usually Worked at Principal Job, by Sex, in Canada and United States	25

TABLE OF CONTENTS – Continued


List of Tables – Continued

Table	Page
9. Percentage of Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More at Principal Job by Age and Sex, Canada	25
10. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More at Principal Job, by Occupation, Canada	26
11. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More at Principal Job, by Industry, Canada	27
12. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More, Showing Number Who Usually Worked Nights, Saturdays and/or Sundays at Principal Job, Canada	28
13. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More, by Region	29
14. Seasonal Indices for Non-agricultural Workers Working 45 Hours and Over, and 55 Hours and Over in 1953 and 1968, Canada....	31
15. Overtime Workers and Premium Paid Workers by Sex for Week Ending June 17, 1967, Canada	37
16. Overtime and Premium Paid Rates of Paid Workers at Principal Job, by Sex, for Week Ending June 17, 1967, Canada	38
17. Overtime and Premium Paid Rates for Paid Workers for Week Ending June 17, 1967, by Age and Sex, Canada	40
18. Overtime Rates for Paid Workers by Age, Sex and Marital Status for Week Ending June 17, 1967, Canada	40
19. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Occupation, Canada	42
20. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Industry, Canada	42
21. Overtime Rates by Usual Time of Work by Sex for Paid Workers for Week Ending June 17, 1967, Canada	44
22. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Region	45
23. Employed by Number of Jobs and Sex in July 1961 and June 1967, Canada, and May 1966, United States	46
24. Multiple Jobholders by Sex and Marital Status for Week Ending June 17, 1967, Canada	47
25. Multiple Jobholding Rate by Age for Week Ending June 17, 1967	48

TABLE OF CONTENTS — Concluded

List of Tables — Concluded

Table	Page
26. Multiple Jobholding by Class of Worker (Primary Job) for Week Ending June 17, 1968	48
27. Multiple Jobholding Rate and Median Annual Income by Occupation, 1968	49
28. Multiple Jobholding by Industry for Week Ending June 17, 1968	50
29. Multiple Jobholding Rate and Average Hours Worked at Second Job by Hours of Work at Principal Job for Week Ending June 17, 1968	51
30. Multiple Jobholding Rate for Paid Workers by Usual Time of Work for Week Ending June 17, 1968	52
31. Multiple Jobholders by Region for Week Ending June 17, 1968....	53
Appendix Tables	
A1. Coefficients of Regression Analysis, 55 Hours and Over	61
A2. Coefficients of Regression Analysis, 45 - 54 Hours	61
A3. Coefficients of Regression Analysis, 41 - 44 Hours	62
C1. Percentage of Workers Working 45 Hours and Over in Canada, 1952-69, Total, Agricultural, Non-agricultural and Paid Workers	66
C2. Percentage of Workers Working 55 Hours and Over in Canada, 1952-69, Total, Agricultural, Non-agricultural and Paid Workers	67



Digitized by the Internet Archive
in 2024 with funding from
University of Toronto

<https://archive.org/details/31761018063206>

CHAPTER I

INTRODUCTION

The subject of this study is that segment of the Canadian labour force which can be called "long-hours" workers. These people either work long hours at their regular jobs or work over and above their normal workweeks as overtime workers or multiple jobholders.

The concept of long hours is based on a socially accepted norm for hours of work, usually defined by government legislation and/or collective bargaining agreements. Any given definition of "long" may be somewhat arbitrary. In Canada, a workweek of 35 to 40 hours is regarded as normal for most kinds of workers, hence for purposes of this study 40 hours was taken as the cut-off point. Persons working 41 hours or longer are considered "long-hours" workers.

Thus defined, the long-hours workers in June 1967 totalled 2.6 million. They accounted for one third of all persons employed in the survey week and nearly 45% of all "full-time" workers (i.e. working more than 35 hours in a week). These data are presented in Tables 1 A and 1 B. It will be noticed that a very high percentage of the long-hours group reported upwards of 45 hours and a sizeable minority worked 55 hours or more.

TABLE 1 A. Employed by Hours Worked in June 1967

Hours worked	Employed	
	'000	%
0	302	4.0
1-34 (part-time)	1,029	13.6
35-39	852	11.3
40	2,812	37.2
41-44	375	5.0
45-54	1,186	15.7
55+	1,011	13.4
Totals.....	7,567	100.0

TABLE 1 B. Employed by Hours Worked in June and 12-month Average 1967

Hours worked	Employed	
	June	12-month average
	%	%
0	4.0	5.3
1-34	13.6	15.9
35-44	53.4	52.3
45-54	15.7	14.9
55+	13.4	11.5
Totals.....	100.0	100.0

The long-hours workers can be classified into the following three categories:

- (a) Persons whose jobs require more than normal hours;
- (b) Persons who work overtime, with or without premium pay; and
- (c) Persons who work at two or more jobs and thus exceed normal hours.

Besides forming an important segment of the labour force, the long-hours workers have been a subject of considerable controversy in labour and welfare economics.¹ How can one reconcile the labour movement's historic push for shorter hours with the modern workers' well established regard for overtime with premium pay? Is it fair or equitable that a part of the labour force adds to its regular earnings by working longer hours—whether through overtime or a second job—when large numbers of workers are unemployed? Should limits on overtime and second jobholding be considered as a means to reducing unemployment? Does overtime pay tend to depress wages? Is it more efficient for the firm to hire additional workers than to get additional hours of work from the existing work force? In general, what is the effect of overtime and moonlighting on efficient allocation of resources and distribution of income?

The present study considers only a few of the possible topics. The main source of statistical material has been the special supplement attached to the monthly Labour Force Survey in June 1967. These data are examined within a framework which draws on the published reports of the Department of Labour and other publications concerned with hours of work.

Concepts, Definitions and Limitations

The magnitude of the long-hours sector, and its components, depends to a large extent upon the definitions adopted. Therefore, it is important to define terms and clarify the concepts used in the survey before presenting the findings.

Long-hours workers—The notion of long hours assumes a norm about working hours. This norm itself can and does change over time, so that what was the "norm" a few decades ago is regarded as "long" today. The norm is also difficult to define with precision and this leads to a somewhat arbitrary measurement of deviations from the norm. As stated earlier, for the purpose of this study the cut-off point was fixed at 40 hours per week and anyone working longer was regarded as a long-hours worker.

The 1967 survey provides two data sets: persons reporting above 40 hours in the survey week (Tables 1 A and 1 B) and persons who "usually"

¹ For a formal economic treatment of the topic see Frederic Meyers, "The Economics of Overtime", and Melvin W. Reder, "Hours of Work and the General Welfare", in *Hours of Work*, Clyde E. Dankert, Floyd C. Mann and Herbert R. Northrup (eds.) (New York: Harper and Row, 1965), pp. 95-110 and 179-97.

worked above 40 hours a week. Both these groups will be subjected to closer examination later in this study.

For the study of trends in hours of work the definition has, of necessity, been shifted to above 44 hours as the cut-off point, there being no historical series of sufficient duration for over 40 hours.

Standard weekly hours—Standard or normal hours are the hours of work specified in a collective agreement or fixed by the employer for his workers. In many, though not all, cases the standard hours determine the limit beyond which any work is to be paid at a premium rate.

Multiple jobholder—The survey counted as such any employed person if he (or she) reported working at two or more jobs during the week ending June 17th. It thus counted some of the normal turnover during the week—that is, movement from one job to another—as part of the moonlighting phenomenon. The magnitude of error introduced by this definitional weakness is likely to be small at an aggregate level but it could cause serious distortions in the reported extent of moonlighting in certain industries and occupations.

The survey included persons holding two jobs even if both fell in the categories “self-employed” and/or “unpaid family worker”. This hinders strict comparison with the United States whose definition restricts multiple jobholders to those holding at least one job for wage or salary.

Reference period—The magnitude of the population working long hours (or working overtime or holding two jobs) is also a function of the time period in question. The June 1967 survey used one week as a period of reference which is quite consistent with the practice of taking a one-week period for determining an individual's labour force status. However, the number of persons who held two or more jobs or worked overtime at any time during a month (or a year) would be higher than the number in any one week.

In a country like Canada, where seasonal factors still account for large fluctuations in employment and unemployment, the time of the year when the survey is conducted can have an important bearing on its outcome. The present survey was conducted in the middle of June when the economy comes out of the slack of the winter months but has not yet reached the peak of summer activity. A comparison of the June pattern for hours worked and the 12-month average for the same year (Table 1 B) suggests that June can be regarded as an average month in this respect. Probably the June picture does differ from say, the winter months in its occupational and industrial distribution, but in terms of total numbers June can be taken as being reasonably representative.

Limitations—The study has several important limitations besides those imposed by the definitions and concepts discussed above. Most im-

portant of these is the lack of any data on earnings. This precludes examining directly the relationships between earnings and hours worked as is done in the American studies² in this area. In the absence of direct information, the present study will have to draw indirect inference about motivation through proxy variables such as age, sex, marital status, occupation and industry.

A serious handicap in dealing with multiple jobholders is the absence of any information on their second jobs. It is clear from the 1962 survey of multiple jobholders,³ as well as from the United States studies,⁴ that only in a small number of cases is the second job in the same occupation and industry as the first job. In most cases, the class of work status on the second job is also different. Thus a paid worker in his principal job might be self-employed in his second job. Information on the second job is of great importance in deciding whether or not the phenomenon has any detrimental effect on job opportunities for the unemployed.

A serious under-reporting of moonlighting may be expected because the practice does not find favour with some employers and unions. Certain self-employed moonlighters may also be reluctant to report themselves as such if they are not reporting their earnings for tax purposes. Unfortunately, a household survey alone cannot be used to estimate the amount of under-reporting; attempts to do so would have to be made through administrative data.

A Brief Outline

Chapter II provides a general background relating to hours of work in Canada. The historical data are scanty, incomplete and not strictly comparable over time; for the earlier years, estimates are taken from the works of individual researchers and in many cases are no more than broad guesses. More reliable estimates, based upon the data collected by the Department of Labour and Statistics Canada, can be provided for the period since 1947. Though imperfect, these estimates do give an idea of the broad movement over time in hours of work.

The causes of the historical decline in hours are analysed and contrasted with the factors which appear to underlie the relative stability of recent years. This is followed by a description of the new patterns of leisure in the form of more statutory holidays, longer vacations and earlier retirement from the labour force.

² Peter Henley, "Leisure and the Long Workweek", *Monthly Labor Review*, LXXXIX, No. 7, U.S. Department of Labor (July 1966), p. 723.

³ Harvey R. Hamel, "Moonlighting - An Economic Phenomenon", *Monthly Labor Review*, XC, No. 10, U.S. Department of Labor (October 1967), p. 18.

⁴ Canada Department of Labour, Economics and Research Branch, "Multiple Jobholding in Canada 1960-61" (mimeographed).

Chapter III uses the data collected in the 1967 survey to study the personal characteristics of long-hours workers. It also examines the cyclical and seasonal behaviour of long-hours workers with the aid of historical series spanning the previous 15 years.

Chapter IV is a discussion of the economics of overtime and multiple jobholding. The prevailing theories, particularly in relation to labour supply, are briefly summarized. The chapter includes a brief discussion of the impact of overtime and moonlighting on job opportunities for the unemployed.

Chapters V and VI are devoted to the findings of the 1967 survey relating to overtime workers and multiple jobholders. The report concludes with a summary of the findings and some broad implications for social and economic policies.

CHAPTER II

HOURS OF WORK AND HOURS OF LEISURE

The Historical Trend

The remarkable economic growth in Canada during the last hundred years was accompanied by a big change in labour market activity for most men. Hours of work declined sharply during the second half of the nineteenth century and the first half of this century. According to a royal commission report submitted in 1889,⁵ a 10-hour day was then the normal schedule in most factories and many workers put in considerably longer hours, although some were already working a 9-hour day. The commission also noted a movement towards shorter hours. From this it is inferred that working hours in 1870 must have been more than 65 per week. Firestone⁶ estimated the workweek in manufacturing to be 57 hours at the turn of the century, 49 hours in 1930 and 44 hours at the end of the Second World War. Thus, this period of eighty years saw the workweek reduced by nearly 33%.

Even this sizeable reduction appears to underestimate the actual decline for, during the earlier period, a high proportion of the labour force in manufacturing was employed on a piece-rated basis and worked considerably longer hours than the factory workers with standard hours. The earlier period would also have had a preponderance of owner-operators who also worked longer hours than time-rated workers.

Causes for Historical Reduction

There is no unanimity among social scientists concerning the factors that led to a shortening of the workweek. It will be fair to say that a number of factors were simultaneously at work and it is difficult to isolate the influence of any one of them.

To begin, it is readily granted that any major reduction in hours would not have been possible without the technological innovations introduced during this period. While trade unions might have obtained shorter hours without any loss of money wages, the shorter hours unaccompanied by matching increases in productivity would have led to higher labour costs per unit of output and a general rise in the price level, thus bringing down the level of real wages. Of course, even with constant technology some reduction in hours could have been accomplished without loss of output. When hours of work are 50 or more reduced hours may actually result in increased production due to such factors as the reduction in illness, accidents and absenteeism; the greater human energy available; and the elimination of inefficient work periods.⁷ But a decline of the magnitude described—roughly, from 65 hours a week to 44—was clearly dependent on the advance in technology.

⁵ Royal Commission's Report on the Relations of Labour and Capital in Canada, Ottawa, 1889, p. 37.

⁶ O.J. Firestone, "Canada's Economic Development 1867-1953", *Income and Wealth*, Series 7 (London: Bowes & Bowes, 1958), p. 207.

⁷ David G. Brown, "Hours and Output", in *Hours of Work*, *op. cit.*, p. 155.

The introduction of more capital-intensive equipment and improved methods of production resulted in higher output per worker, and higher productivity enabled employers to accede to pressures for more wages and fewer hours.

It is doubtful whether the free enterprise mechanism and market competition would have produced shorter hours of work in the absence of any external pressures.⁸ The trade unions, liberal reformers and legislatures provided the necessary external stimuli and acted as prime initiators of the movement towards shorter hours. This movement was a major plank of Canadian trade unions in the nineteenth century—a plank frequently employed to mobilise workers under the union flag.⁹ The Royal Commission on Labour and Capital observed in 1889 that “some trades that have a thorough organization have managed to secure a reduction in the number of hours constituting a day’s work”.¹⁰ The trade unions no doubt reflected the feelings of the workers against the long and hazardous hours of work prevailing in those days and a willingness to take a part of their increased earnings in the form of greater leisure. They were aided in this cause by the liberal reformers of the era who saw in reduced hours and more free time an opportunity to educate illiterate workers and to raise the quality of workers’ lives in general.

Changes in the industrial composition of the work force over the 80 years were another factor responsible for reducing the average workweek. Industrial expansion meant a shift from farms, with long and irregular work schedules, to factories in the cities with shorter and regular hours of work. The result was a steeper decline in the average workweek than would be observed in the manufacturing sector alone.

Legislation appears not to have been a major factor. The earliest laws regulating hours had very limited application; more comprehensive legislation did not come until the nineteen-forties in some provinces and still more recently in others, with limits in all cases of more than 40 hours per week. Federal legislation, which applies only to workers in industries under federal jurisdiction, made its first appearance in 1965, providing a standard of 40 hours and a maximum of 48 hours.

A study conducted in the early nineteen-sixties concluded:

“With the possible exception of early legislation affecting the hours of work of women and young persons in the latter part of the nineteenth century and first decade of the twentieth century, hours-of-work legislation has had little impact on the course of the standard or scheduled

⁸ Herbert R. Northrup, “The Reduction in Hours”, *Hours of Work*, *op. cit.* pp. 1-16.

⁹ Sylvia Ostry cites a couple of examples of the early union fights for reduction of hours in H.D. Woods and Sylvia Ostry, *Labour Policy and Labour Economics in Canada* (Toronto: MacMillan of Canada, 1962), pp. 334-36. For a review of the role of U.S. unions, see Richard L. Rowan, “The Influence of Collective Bargaining on Hours”, in *Hours of Work*, *op. cit.*, pp. 17-35.

¹⁰ Royal Commission on Labour and Capital, *op. cit.*, p. 38.

workweek in Canada with the exception of a few industries characterized by very long hours.”¹¹

Probably of greater assistance to Canadian workers have been the reductions in the workweek taking place in the United States. This influence was expressed through, among other things, the medium of international trade unions, Canadian workers using the examples across the border to strengthen their own demands. It is also worth recording that, in recent years, the role of the American government has been more prominent than that of the federal government in Canada. In the United States, the Fair Labour Standards Act which imposed a limit of 40 hours a week dates back to 1938.

The Recent Trend

The period since World War II has seen a continuation of the historical trend towards shorter hours, albeit at a reduced pace. Table 2 shows that the standard workweek for plant workers in manufacturing industries decreased by five hours between 1947 and 1967, with almost all of the de-

¹¹ W.R. Dymond and George Saunders, "Hours of Work in Canada", in *Hours of Work*, op. cit., pp. 55-56.

TABLE 2. Standard and Actual Workweek in Canada in Selected Years, 1947-67

Year	Standard workweek ¹		Actual hours	
	Office workers	Plant workers	Paid ²	Worked ³
1947	45.7	42.5	46.0 ⁴
1952	38.6 ⁵	43.6 ⁵	41.5	42.3
1957	37.9	41.6	40.4	40.2
1962	37.6	41.3	40.7	39.9
1967	37.6	40.9	40.9	39.4

¹ Standard workweek relates to manufacturing.

² Relates to those wage-earners in manufacturing for whom a record of hours is kept.

³ Relates to paid workers in the monthly Labour Force Survey.

⁴ Relates to all non-agricultural workers.

⁵ Relates to 1951.

Source: Standard workweek data for 1952 and later years were obtained from the annual Survey of Working Conditions in Canadian Industry conducted by the Canada Department of Labour. The data for earlier years were obtained from issues of the *Labour Gazette*, published by the Canada Department of Labour. Average hours paid data were obtained from the monthly Labour Force Survey and *Man-hours and Hourly Earnings*, Statistics Canada (Catalogue 72-003 Monthly) (Ottawa: Information Canada).

crease occurring by 1957. Office workers experienced a smaller decrease but they had shorter hours to begin with and still do. The evidence of the second ten-year period suggests that the standard workweek has stabilized at approximately 40 hours for plant workers and 37½ hours for office workers.

Table 2 also examines actual hours worked by wage-earners in manufacturing industries during the same period. The second series differs in coverage from the one producing standard hours and gives a better representation to smaller establishments. A comparison of the two series reveals that standard hours declined somewhat more than actual hours worked. The difference reflects partly the amount of overtime work in manufacturing and partly the longer standard week in smaller establishments.

The last column in Table 2 represents average hours worked by paid workers collected through the monthly Labour Force Survey. This series shows a greater decline than standard hours. The monthly Labour Force Survey covers all sectors of the economy (a few of which are not covered in the establishment series). It thus includes a higher proportion of part-time and casual workers whose numbers have grown rapidly during the period under discussion. Their shorter hours contribute to the lowering of average hours worked.

Table 3 traces trends in standard and actual hours for persons working more than 44 hours in a week (as reported in the monthly Labour Force Survey). The proportion of employees working 45 hours or more declined from 39% in 1952 to 11% in 1967 and of those working 48 hours or more declined from 20 to 4%. This decline is further evidence of the reduction in standard hours for plant workers in manufacturing.

TABLE 3. Percentage of Employees with Standard and Actual Workweek of More Than 45 Hours in Selected Years, 1952 - 67

Year	Standard hours ¹		Actual hours ²	
	45 hours and over	48 hours and over	45 hours and over	55 hours and over
1952	39 ³	20 ³	31.9	6.6
1957	18	8	22.7	5.9
1962	15	7	21.4	6.3
1967	11	4	20.5	6.3

¹ Relates to plant workers in manufacturing.

² Relates to non-agricultural paid workers.

³ Relates to 1951.

Source: Same as for Table 2.

The actual hours worked, on the other hand, declined until 1957 and have remained more or less stable since that time. In 1967, more than 20% of employees were working more than 44 hours. Actual hours include overtime as well as multiple jobholding and their failure to decline as much as standard hours is an indication that many people are working longer hours than they are required to.

It is noteworthy that the number of part-time and casual workers in the labour force (reflected in the series on actual hours) greatly increased during the period. Hence, the proportion of long-hours workers in 1967 would have been higher than 20% if the composition with respect to part-time and full-time workers had remained unchanged. On the other hand, the monthly labour force series includes all sectors except agriculture whereas the standard hours series relates to the manufacturing sector alone which has experienced a greater improvement in hours than other sectors.

Causes of Relative Stabilization of the Workweek

The relative stabilization of daily and weekly hours can be attributed partly to the higher price of leisure in terms of foregone earnings. When the hours of work were long, the work strenuous and tiring and the wages low, the marginal rate of substitution of wages for leisure was quite low. However, as working hours declined, the work became less strenuous and wages went higher, the opportunity cost of additional leisure rose. Organized workers now seem to want more wages rather than shorter daily hours. Frequently, industrial disputes are centred on the distribution of available overtime work among employees;¹² some collective agreements in the United Kingdom even include a specified amount of overtime work as part of the overall bargain.

The workers' preference for more work is reflected in the difference in trends between standard and actual hours with respect to long hours shown in Table 3. As noted earlier, the decline in the proportion of employees working 45 hours or longer is much smaller than the decline in the percentage who have to work these hours, apparently due to an increase in overtime and dual jobholding.

It could be argued that more overtime does not imply a desire for more work since it tends to be rewarded at a premium rate. But no such factor is in operation in the case of moonlighters who frequently accept a second job at less than the wage in their primary job.

The weight of public opinion also seems to have shifted against a further reduction in working hours. In a public opinion survey (Gallup Poll) conducted in September 1969, a majority of the Canadian respondents were against reducing the workweek.¹³ Significantly, there was no marked difference in this respect between the response of labour and of management executives.

¹² M.V. Reder, "The Cost of a Shorter Work Week", *IRRA Nineth Annual Proceedings*, 1956, p. 208.

¹³ Canadian Institute of Public Opinion, Press Release, Saturday, November 1st, 1969.

Another factor which argues against reduction beyond the 8-hour day is the reduced chance of productivity gain to be expected from it. Industrial accidents are now less frequently associated with fatigue arising out of long hours than in the past. A person working 40 hours a week has sufficient time to rest and maintain his health, helped, no doubt, by the advancement of medical science. A reduction below eight hours, moreover, is likely to increase the proportion of "set-up" and "knockdown" periods¹⁴ which would lower productivity.

The last and perhaps the most important factor working against a further reduction in working hours is the change in patterns of leisure.

Distribution of Lifetime Leisure

The reduction in working life has also come in forms other than a simple reduction in the workweek. The discussion so far has covered only working hours in a day and working days in a week, thus excluding other forms in which increased leisure has been taken such as more holidays, longer vacation, late entry into the labour force and earlier withdrawal from it. We turn now to briefly describe important developments in these areas.

Paid holidays—The practice of paid holidays for plant workers was uncommon before the Second World War. A few holidays were observed in the factories but hourly-rated wage-earners were rarely paid for them. However, by 1967 98% of non-office workers in Canada were in firms that provided some paid holidays; office workers were all similarly provided. As may be seen in Table 4 95% of these office workers and 84% of the non-office workers had eight or more holidays during the year.

¹⁴ David G. Brown, *op. cit.*, p. 156. "Set-up" and "knockdown" refer to time spent on starting and shutting off machines, wash up periods, etc.

TABLE 4. Paid Statutory Holidays for Office and Non-office Workers in Manufacturing, 1951 and 1967

Number of paid statutory holidays	1951		1967	
	Non-office workers	Office workers	Non-office workers	Office workers
	per cent			
Receiving at least one holiday	89.3	99.1	98	100
1-5	19.4	9.9	3	1
6	15.5		4	1
7	9.9	13.2	7	3
8	37.8	57.2	42	41
9	6.7	11.3	29	39
More than 9		7.5	13	15

Source: See: *Working Conditions in Canadian Industry 1967*, Report No. 11, Canada Department of Labour (Ottawa: Information Canada, 1968); and the *Labour Gazette*, Canada Department of Labour (Ottawa: Information Canada, October and November 1953).

Vacations—Workers today have longer vacations and they have to work fewer years to be eligible for them. The progress of plant workers has been particularly impressive in this regard. Table 5 gives a comparison of annual vacations available to workers during 1951 and 1967. In the latter year 90% of office and 80% of non-office workers were in establishments with provisions for three weeks of paid vacation; in 1951 percentages were 55 and 46 respectively. In 1967 nearly two thirds of all establishments provided for four weeks and one fifth for five weeks of paid vacation for their long service employees; in 1951 almost no one was allowed a three week vacation before completing ten years of service.

**TABLE 5. Paid Vacations for Office and Non-office Workers
in Manufacturing, 1951 and 1967**

Duration of vacation	1951		1967	
	Non-office workers	Office workers	Non-office workers	Office workers
	per cent			
At least one week	99.1	99.7	99	100
One week	91.8	46.3	72	71
Two weeks	89.2	96.9	95	98
After one year or less of service	14.2	88.2	44	91
After two years or less of service	9.3	4.2	12	5
After three years or less of service	16.2	0.8	27	2
After five years or less of service	46.2	1.7	8	1
Others	3.3	2.0	3	—
Three weeks	45.5	54.6	80	90
After five years or less of service	—	—	18	25
After ten years or less of service	—	4.1	39	49
After fifteen years or less of service	19.5	23.1	21	15
After twenty years or less of service	12.1	14.7	—	—
Others	13.9	12.7	2	1
Four weeks	2.3	2.5	57	69
Five weeks or more	1.1	0.1	17	20

Source: Same as for Table 4.

In addition, the practice of granting special leave to employees on such occasions as service anniversaries and retirement is becoming increasingly common.

The trend towards longer vacations is also confirmed by the Labour Force Survey data shown in Table 6. The number of employed people not at work during the whole of the survey week increased by nearly 150% during the 20-year period. Those on vacation all week showed a nearly four-fold increase.

TABLE 6. Employed Workers Not at Work and on Vacation in Canada in Selected Years, 1947-67, Annual Averages

Year	Employed	Employed but not at work	Per cent of employed not at work	On vacation all week	Per cent of employed on vacation all week
	'000	'000		'000	
1947	4,832	157	3.2	65	1.3
1952	5,169	238	4.6	99	1.9
1957	5,731	200	3.5	96	1.7
1962	6,217	262	4.2	160	2.6
1967	7,379	390	5.3	237	3.2

Source: The monthly Labour Force Survey, Statistics Canada.

Late entry and early retirement—The last important increment to leisure has come about through people spending a smaller fraction of their life in the labour force. This shortening of the working life, both at the point of entry and at the point of withdrawal, is traced in Table 7.

A male aged 14 in 1921 could expect to live for another 53 years, of which about eight years would have been spent outside the labour force. A

TABLE 7. Average Number of Expected Years in Market and Non-market Activity of Canadian Male Aged 14, 1921-61

Year	Average expected number of years of					Years remaining to enter labour force (4)-(5)
	Life	Labour force activity for all males		Non-market activity (1)-(2)	Retirement (1)-(3)	
		In the population	In the labour force			
	(1)	(2)	(3)	(4)	(5)	(6)
1921	53.5	45.2	48.6	8.3	4.9	3.4
1931	54.3	45.0	48.9	9.3	5.4	3.9
1941	55.0	44.9	49.0	10.1	6.0	4.1
1951	56.3	44.4	48.8	11.9	7.5	4.4
1961	57.2	43.8	48.9	13.4	8.3	5.1

Source: Computed from data in Frank T. Denton and Sylvia Ostry, "Working-Life Tables for Canadian Males", 1961 *Census Monograph Programme*, Statistics Canada (Catalogue 99-555) (Ottawa: Information Canada, 1969).

male of the same age in 1961, however, could expect to live for 57 years and 13 years would be spent outside the labour force. Thus, during these four decades, five years of non-market activity were added to a man's life. Two-thirds of this addition came through early retirement and the remainder through delayed entry into the labour force. The sharp decline in labour force participation rates of men under 25 and over 64 in recent years¹⁵ shows that this trend still continues.

Optimization of Leisure

The changing pattern of leisure suggests that people are not indifferent to how leisure is distributed. The optimum distribution of leisure seems to be a function of the amount of leisure itself and the avenues for non-market activity.

During the nineteenth and early twentieth centuries the emphasis was on the reduction of long hours which, in some instances, were more than 12 hours a day. Everyone stood to gain through reduced daily hours of work. The worker improved his health and quality of life and the employer gained through increased productivity. However, once the 8-hour day was achieved a further reduction in hours did not appear as attractive as other forms of leisure. Commuting from home to work and back again began to account for an increasing proportion of the worker's time. The productivity advantages flowing out of a reduction in daily hours also tended to disappear after this point. Therefore, the emphasis shifted to a 5-day 40-hour week which to this day is the norm for workers in most industries.

A recent form taken by leisure has been more holidays, longer vacations and more time spent outside the labour force. Annual vacations are popular as they enable the worker to get away from the monotony of his job. In many instances employers have adapted to this situation by shutting down the plant and giving a general vacation or by scheduling vacations in summer and substituting students for their regular workers.

Early retirement has emerged as the most important form of leisure in recent years. For some, it has been a forced withdrawal from the labour force causing considerable financial and emotional hardships. From the standpoint of society, however, considerable economic gains may flow from postponing leisure to later years. The process of aging generally renders older workers less productive than younger workers. These younger workers, in addition, may have embodied in them the latest forms of human capital (i.e., technical training, education, etc.). Higher savings combined with more old-age benefits also tend to reduce the labour supply of older workers.

It is doubtful whether late entry into the labour force should also be considered as increased leisure. Higher educational requirements for an

¹⁵ Norman Davis, "Cycles and Trends in Labour Force Participation", *Special Labour Force Studies*, Series B No. 5, Statistics Canada (Catalogue 71-517 Occasional) (Ottawa: Information Canada, 1971), Charts 6 and 7.

increasing number of jobs necessitate a longer period of schooling which is a form of non-market activity whose classification as leisure might be regarded as questionable.

The Prospects

While the standard week appears to have remained relatively stable since 1957, the movement for the shorter workweek is by no means dead. The trade unions still pass resolutions in its favour¹⁶ and it is commonly suggested as a measure to combat the impact of recession and automation.

The industrial composition of the labour force has continued to shift from primary to secondary and from secondary to tertiary industries. There has also been an occupational shift from blue to white collar occupations. Both these types of shifts generally involve a move towards shorter hours and they are likely to continue in the future, thus bringing further reductions in the average hours worked.

The labour force has also become more heterogeneous during the post-war period with an increase in the number of part-time workers, particularly working housewives. From available evidence this trend is judged likely to continue in the future and this would mean a decline in the average workweek. It is also possible that the future standard workweek will be more flexible, with respect to both its length and schedule, to meet the requirements of the diverse elements in the labour force.

The emergence of a 4-day week in many United States and Canadian establishments has introduced a new element in scheduling the workweek. The idea seems to be catching the imagination of an increasing number of unions as well as management. The preliminary evidence suggests that both workers and management are happy with the new arrangement: the workers gain through longer weekends and less time and cost incurred on commuting; the gains to management include lower absenteeism, higher worker morale and increased productivity through longer runs and reduced wastage of time.

However, both unions and management have some misgivings regarding the 4-day week. The change generally has not involved a reduction in weekly hours of work and has meant a going back to the 10-hour day which the unions vigorously fought in the past. The unions are reluctant to go back to the old daily hours while employers are afraid that workers would demand an 8-hour day after the 4-day week is established.

The speed with which the 4-day week is spreading indicates that it may be the dominant work pattern in the near future. But the unions are not likely to stop there and will probably press for an 8-hour, 4-day week, i.e., a 32-hour workweek.

¹⁶ Richard L. Rowan, *op. cit.*, pp. 24-30.

CHAPTER III

THE REGULAR LONG-HOURS WORKERS

The previous chapter traced the historic decline in working hours in Canada. After the mid-fifties the movement towards shorter hours slowed considerably; no great improvement is to be found in either average standard hours or the average representing total hours worked by employees (Table 2). It was also shown that the improvement in standard hours—as measured by the declining percentage **required** to work long hours—has not been matched by the decline in the percentage of employees **actually** working those hours (Table 3). This chapter focusses on the latter.

The chapter is divided into two sections. The first presents the findings of the 1967 survey, giving the distribution of long-hours workers by demographic and some economic characteristics. The second section presents a statistical analysis of the cyclical and seasonal behaviour of long-hours workers.

According to Table 1, approximately one third of all persons employed in the survey week worked more than 40 hours. Most of them worked 45 hours or longer. Excluding persons working less than 35 hours, who can be roughly categorized as part-time, it can be said that nearly half the full-time workers put in long hours.

To study the characteristics of long-hours workers it is preferable to select a group which has a longer association with the category than the single survey week. In other words, we prefer to look at persons who **usually** work long hours. The 1967 survey identified paid workers reporting that they usually worked more than 40 hours per week; summary statistics for this group are given in Table 8.

The new data set involves three changes from the earlier measure of long hours: first, it excludes the self-employed; secondly, it excludes persons with long hours in the survey week who do not usually work these long hours; thirdly, it adds persons who usually worked more than 40 hours but happened not to do so in the survey week. Exclusion of the self-employed was bound to lower the percentage as well as the absolute number in the long-hours category because the self-employed as a group tend to work longer hours than paid workers. The effect of the other two changes would be offsetting.

Table 8 shows that approximately one quarter of all paid workers “usually” worked more than 40 hours.

More than 80% of the long-hours workers were men. Table 9 shows that nearly 30% of male workers could be classified as long-hours workers whereas only 13% of the female workers can be classified as such.

TABLE 8. Paid Workers at Work During the Week Ending June 17, 1967, by Hours Usually Worked at Principal Job, by Sex, in Canada and United States

Usual hours of work	Canada			United States ¹
	Both sexes	Male	Female	
	per cent			
40 hours or less	75.6	70.3	86.5	77.8
41-48 hours.....	14.8	17.3	9.5	8.5
49 hours or more	9.6	12.4	4.0	13.7
Totals..... '000	6, 158	4, 143	2, 015	63, 152

¹ United States data relate to May 1967. The figures relate to those actually working those hours during the survey week.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada and John Fenlon, "Patterns in Overtime Hours and Premium Pay", *Monthly Labor Review*, XCII, No. 10, U.S. Department of Labor (October 1969), p. 43, Table 1.

TABLE 9. Percentage of Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More at Principal Job by Age and Sex, Canada

Age	Both sexes		Male		Female	
	41 hours or more	49 hours or more	41 hours or more	49 hours or more	41 hours or more	49 hours or more
14-24 years	21.0	7.6	26.4	10.1	13.3	3.8
25-44 "	26.5	11.1	32.0	14.1	12.6	3.6
45-64 "	24.3	9.3	28.7	11.4	14.5	4.8
65 years and over	26.0	9.7	28.4	11.6	--	--
Totals	24.4	9.6	29.7	12.4	13.5	4.0

The difference between males and females is somewhat overstated because the latter would include a higher proportion of part-time workers.¹⁷ But the males' higher propensity to work long hours is understandable in view of the fact that a majority of female workers are married and this usually entails domestic responsibilities. The latter may involve a high marginal rate of substitution between market and non-market activity.

¹⁷ A higher proportion of women as compared to men worked part-time during June 1967; the proportion of employed females working less than 35 hours was 29.2% as compared to 12.4% for males.

The higher male propensity to work long hours was maintained in all broad age groups as well as in the two sub-groups of long-hours workers, namely, 41-48 hours and 49 hours or more.

The proportion of long-hours workers did not vary with age except in the case of males between the ages of 25 and 44. The higher proportion in this age group seems to reflect the larger financial responsibilities of the head of the household with a growing family.

Long-hours Occupations

Occupations vary in the degree of responsibility associated with the job, the opportunities available for extra work and the industries in which they are concentrated. Thus a manager's responsibility often requires working longer hours than others; a construction worker finds more opportunities during certain months of the year; farm workers are in a long-hours industry. These are some of the occupations which are likely to have a higher than average proportion of long-hours workers.

TABLE 10. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More at Principal Job, by Occupation, Canada

Occupation	Total	41 hours or more		49 hours or more	
		Number	Rate ¹	Number	Rate ¹
	'000	'000	%	'000	%
Managerial	398	155	38.9	70	17.6
Professional and technical	826	166	20.1	74	9.0
Clerical	978	72	7.4	17	1.7
Sales	452	140	31.0	56	12.4
Service and recreation	785	202	25.7	76	9.7
Transport	316	148	46.8	77	24.4
Communication	61	--	--	--	--
Farm workers	124	77	62.1	54	43.5
Loggers, fishermen, etc.	65	40	61.5	22	33.8
Miners, quarrymen and related workers..	54	10	18.5	--	--
Craftsmen, production process and related workers	1,783	414	23.2	120	6.7
Labourers and unskilled workers	317	74	23.3	21	6.6
All occupations	6,158	1,502	24.4	593	9.6

¹ Obtained as percentage of workers in the occupation.

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Distribution by broad occupational groups is given in Table 10. As expected, primary occupations (including farm workers, fishermen and loggers but excluding mine workers) showed the highest proportion of long-hours workers—more than three fifths worked longer than 40 hours and two fifths worked more than 49 hours. Outside the primary sector transportation had the highest proportion of long-hours workers—those usually working more than 40 hours accounted for 47% of the total and half of these worked more than 49 hours.¹⁸ The managerial group also placed well above average. This group includes a large number of owner-operators who, like the self-employed, tend to work longer hours than other paid workers.

On the other end of the spectrum are the clerical workers with only 7% working more than 40 hours and less than 2% working more than 49 hours. In the very large category of "craftsmen and production process workers" 23% worked long hours. This is a heterogeneous category which includes a broad range of occupations—from construction trades such as plumbers and electricians to assembly-line workers who make up a large proportion of employment in the manufacturing industry.

Long-hours Industries

Table 11 gives the distribution of long hours by industry. It shows wide fluctuations ranging from a peak of 64% in agriculture to a low of 12%

¹⁸ Transportation covers a large number of occupations, some of which are air pilots, navigators and train and bus operators who conceivably have a lower proportion of long-hour workers as compared to other categories such as truckers and taxi drivers.

**TABLE 11. Paid Workers at Work During Week Ending June 17, 1967
Who Usually Worked 41 Hours or More, and 49 Hours or More
at Principal Job, by Industry, Canada**

Industry	Total	41 hours or more		49 hours or more	
		Number	Rate ¹	Number	Rate ¹
	'000	'000	%	'000	%
Agriculture	112	72	64.3	54	48.2
Forestry, fishing and trapping	83	46	55.4	24	28.9
Mines, quarries, oil wells	109	23	21.1	--	--
Manufacturing	1,653	313	18.9	91	5.5
Construction	396	124	31.3	51	12.9
Transportation, communication and other utilities	608	138	22.7	62	10.2
Trade	964	318	33.0	109	11.3
Finance, insurance, real estate	285	49	17.2	24	8.4
Community, business and personal service	1,502	366	24.4	154	10.3
Public administration	445	53	11.9	15	3.4
All industries	6,158	1,502	24.4	593	9.6

¹ Obtained as percentage of workers in the industry.

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

in public administration. Generally speaking, industries with a high proportion of seasonal workers also employ a higher proportion of long-hours workers. Agriculture, forestry, and fishing recorded a majority of employees working more than 40 hours. Since these industries also include relatively large numbers of the self-employed who tend to work longer hours than paid workers, the overall proportion of long-hours workers in them might be higher still.

Construction and trade are the other major industrial sectors with an above average proportion. Construction, too, is a seasonal industry which is at its peak during the summer months. The trade sector encompasses a mixture of large and small establishments, many observing long working hours, particularly in the smaller communities.

Nearly 20% of the manufacturing workers normally work longer than 40 hours. Although this is below the overall average, it represents more than 300,000 workers which is more than 20% of all long-hours workers. Manufacturing includes many small non-unionized establishments whose employees work beyond the 40-hour norm.

Long Hours and Work Schedule

Table 12 shows the relationship between long hours and "usual" time of work. Persons working on weekdays alone accounted for nearly 60% of all workers but only less than a third of the long-hours workers. They had the lowest rate (13%) of long-hours workers. On the other hand, a majority of those working on Saturdays worked longer than 40 hours. Most of them

TABLE 12. Paid Workers at Work During Week Ending June 17, 1967, Who Usually Worked 41 Hours or More, and 49 Hours or More, Showing Number Who Usually Worked Nights, Saturdays and/or Sundays at Principal Job, Canada

Usual time of work	Total	41 hours or more		49 hours or more	
		Number	Rate ¹	Number	Rate ¹
	'000	'000	%	'000	%
Nights	348	58	16.7	24	6.9
Saturdays	1,021	543	53.2	211	20.7
Nights and Saturdays	301	121	40.2	67	22.3
Saturdays and Sundays	314	127	40.4	75	23.9
Nights, Saturdays and Sundays	496	167	33.7	102	20.6
Not nights, Saturdays or Sundays	3,629	473	13.0	110	3.0
All schedules²	6,158	1,502	24.4	593	9.6

¹ Obtained as percentage of total in the usual time of work categories.

² Different schedules don't add up to all schedules: "Sundays" and "Sundays and Nights" categories, being very small, are excluded from the table.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

would be on a six-day week. Those working at night and on Sundays as well as Saturdays comprised a high proportion with a long workweek.

At first it seems surprising that those working regularly at night (but not on Saturdays) should have had a relatively small proportion of long-hours workers; however, this category is likely to include a large number of shift workers whose weekly hours follow the same pattern as those of week-day workers.

Regional Differences

The regional pattern in Canada suggests that usual hours of work are mainly a function of the degree of unionization which itself depends upon such factors as the industrial distribution of its workers and the size of its establishments.

The distribution of long hours by region is shown in Table 13. There is a substantial difference between Ontario and British Columbia on the one hand and all other provinces on the other. The Atlantic Region showed the highest proportion of long-hours workers with approximately a third working more than 40 hours. This appears to be partially due to a concentration of seasonal economic activity. Quebec and the Prairies reported the same proportion of long-hours workers. The Quebec figures are likely to be inflated by the impact of Expo 67. The Prairies contain a higher proportion of farm workers who were earlier shown to work long hours. The lowest proportion was reported in British Columbia where only a seventh of all paid workers worked 41 hours or more.

**TABLE 13. Paid Workers at Work During Week Ending June 17, 1967,
Who Usually Worked 41 Hours or More, and 49
Hours or More, by Region**

Region	Total	41 hours or more		49 hours or more	
		Number	Rate ¹	Number	Rate ¹
	'000	'000	%	'000	%
Atlantic	512	173	33.8	70	13.7
Quebec	1,744	510	29.2	220	12.6
Ontario	2,389	464	19.4	173	7.2
Prairies	908	267	29.4	93	10.2
British Columbia	606	87	14.3	36	5.9
Canada	6,158	1,502	24.4	593	9.6

¹ Obtained as percentage of total workers in the region.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Cyclical and Seasonal Behaviour of Long-Hours Workers

It may be hypothesized that the number of long-hours workers in general, and overtime in particular, is sensitive to cyclical fluctuations in economic conditions. The assumption is that firms respond to changed economic conditions by increasing or reducing the amount of overtime work before new hirings or lay offs. This should reflect itself in the number of people working long hours. To test whether or not this is true three seasonally adjusted monthly series of long-hours workers were regressed on seasonally adjusted unemployment rates, with lags of zero, one, two, and three months.¹⁹ The form of the regression and the estimates of coefficients are described in detail in Appendix A and the results are briefly discussed below.

At Work 55 Hours and Over

Multiple regression analysis yielded a high coefficient of determination ($R^2=0.75$) but this was due mainly to a high trend component. The regression coefficient of the "55 hours and over" category upon the unemployment rate was consistently negative but insignificant. This result remained unchanged when the unemployment rate was lagged up to three months. The workers in this category thus showed very little sensitivity to fluctuating conditions in the labour market.

A large number of persons working these long hours are self-employed workers in trade and community and business services, and their working hours are relatively little influenced by conditions confronting paid workers. Therefore, they are unlikely to be directly affected by any stimulation or cooling of the economy.

At Work 45- 54 Hours

This class of workers is subjected to opposing pulls at two ends, given a change in the economic climate. During an upswing the numbers are diminished through an exodus into the category of 55 hours and over. The reverse phenomenon takes place during a downswing. However, since the category 55 hours and over was shown to be relatively insensitive to economic fluctuations, it follows that the category 45- 54 hours should increase in numbers during a boom and decrease during a recession.

The results of the regression analysis support this hypothesis. The number of workers in this category depends in a significant way upon the rate of unemployment and a 1% reduction in the unemployment rate is associated with an increase of 40,000 people in this group. This result is insensitive to lags of up to three months in unemployment, both with respect to the level of significance and to the magnitude of change associated with a 1% change in the unemployment rate.

¹⁹ The three series which cover workers in all non-agricultural industries including the self-employed are persons working 55 hours and over, 45 to 54 hours, and 41 to 44 hours.

At Work 41-44 Hours

This category, too, is affected by opposite pulls at its two ends by a change in economic conditions. However, unlike the previous category, the effect of the movement to and from the next higher category is not negligible. The category 41-44 hours may also be presumed to be affected by a movement of paid workers to some marginal occupations as self-employed workers during a recession and by an opposite movement during the pick-up of economic activity. On balance, the opposite effects seem to cancel each other: the regression coefficient of 41-44 hours upon unemployment is negligible and statistically insignificant.

Seasonality

The severe climatic conditions affect a large segment of economic activity in Canada and are reflected in most economic series, including employment and unemployment. It is worth examining how seasonality affects long-hours work. Seasonal indices for the number of persons working 45 hours and over and 55 hours and over were computed for the years 1953 and 1968 on the basis of data available for the two series since 1953. These are shown in Table 14.

TABLE 14. Seasonal Indices for Non-agricultural Workers Working 45 Hours and Over, and 55 Hours and Over in 1953 and 1968, Canada

Month	1953		1968	
	45 hours and over	55 hours and over	45 hours and over	55 hours and over
January.....	95.6	88.2	97.1	90.7
February.....	94.4	89.5	96.6	91.8
March	92.5	81.5	96.0	93.6
April	92.3	85.9	96.3	95.1
May	93.7	95.4	102.4	101.9
June	104.6	110.2	111.1	113.5
July.....	103.0	114.7	100.6	105.8
August	104.8	114.3	105.1	107.8
September.....	106.5	110.6	112.2	114.2
October.....	109.3	112.6	81.2	87.9
November	106.6	107.1	95.4	93.7
December	97.0	90.2	105.9	103.7

Source: Monthly Labour Force Survey, Statistics Canada.

Both series displayed statistically significant seasonal behaviour although the patterns of seasonality changed substantially over the period. Changes in the seasonal pattern stem from changes in the composition of the labour force, new technological developments and public policies affecting seasonal industries. The two series were affected differently by these changes. The 55 hours and over series showed smaller fluctuations in 1968 than in 1953. The 45 hours and over series moved in the opposite direction; the peak and low values of the index in 1968 were 112 and 81 respectively, as compared to 109 and 92 in 1953.

CHAPTER IV

THE ECONOMICS OF OVERTIME AND MULTIPLE JOBHOLDING

This chapter briefly surveys the prevailing economic theories about overtime and multiple jobholding. It will serve as a background for the empirical findings of the next two chapters.

Overtime and Labour Supply

A higher wage, according to traditional economic theory, affects the supply of labour in two ways. On the one hand, the higher income from higher wages creates a demand for more leisure (income effect); on the other, the higher wage rate makes leisure more expensive (substitution effect). The latter—work instead of leisure—should normally be the larger of the two because the proportional increase in total income is relatively small compared to the increase in the wage rate which determines the substitution effect. Thus, the introduction of overtime should generally result in an increase in the amount of labour offered.²⁰

This is readily observed by the willingness of most workers to work longer for premium payment. What is not so obvious is that, using similar analysis, it can be shown that more hours will be supplied for work at a given rate which is a combination of straight pay and overtime.²¹

The above analysis holds true for workers who can be regarded as “fully employed” before the introduction of overtime payment—that is, whose marginal rate of substitution of work for leisure equals the straight time wage rate. What about workers who consider themselves as “under” or “over-employed” at the going wage rate? The person who is willing to offer more hours of work at the prevailing wage (the “under-employed”) will obviously be even more willing at a premium rate as his marginal rate of substitution of work for leisure was already higher than his wage.

The reaction of the “over-employed” worker who would like to trade some work for more leisure at his current wage is less predictable. Unlike the “fully” and “under-employed”, his marginal rate of substitution of income for leisure is higher than the current wage and he is forced to “over-work” because of institutional or legal factors controlling his hours of work. His willingness to offer more hours would depend upon the rate at which overtime work is rewarded. He would offer more hours if the premium rate more than offset his preference for leisure for the last hour worked at the straight time rate.

Supply of Family Labour

While overtime pay will lead most persons to offer more labour, its effect on the labour supplied by the family may be the opposite to its effect on the individual. If the family has fixed aspirations, there might be

²⁰ Richard Perlman, *Labor Theory* (New York: John Wiley & Sons, Inc., 1969), p. 34.

²¹ Frederic Meyers, *op. cit.*, p. 99.

an exchange of work and leisure between members of the family. The husband, whose income is usually higher than that of other members of the family, may decide to work longer himself as a result of overtime but this may cause a complete or partial withdrawal of the secondary workers from the labour force. However, overtime is generally symptomatic of a tight labour market and in that situation the secondary worker also tends to have more and better job opportunities. The net effect of overtime on the supply of family labour is an empirical question which has not yet been investigated.

Overtime and a Shorter Workweek

The discussion so far has explored the effect on labour supply of introducing a premium payment for hours worked beyond the norm, assuming no change in the basic wage rate. However, if the introduction of overtime is accompanied by an increase in the straight time wage rate—which will be the case if the nominal workweek is reduced without any reduction in weekly pay—the income effect could no longer be considered small. Thus, the simultaneous introduction of overtime and a shorter workweek could actually lead workers to offer fewer hours, although overtime alone would almost always cause them to supply more.

Demand for Overtime

The demand for overtime depends upon conditions confronting firms in labour and product markets. To illustrate, let us suppose some evidence of an increased demand for a product in response to which the firm wishes to expand production. If, in the first situation, the firm has few workers on lay off it would probably find it more advantageous to increase production by utilizing its existing work force more intensively, through overtime, than to bear the cost of hiring and training additional workers. On the other hand, should the firm already have a large number of workers on lay off it would be more advantageous to recall these workers since hiring and training costs would be minimal.

Suppose, then, that the increase in demand is sustained. With no more workers on lay off, the firm has to choose between regular overtime from existing staff and additional hirings from outside. The choice would depend on comparative costs. The cost of overtime would be the premium payment plus any income related fringe costs, such as pensions; the cost of additional hiring would include search cost, recruitment, training and fringe costs related to numbers.²²

Some calculations of comparative costs based on U.S. data are available.²³ Assuming an overtime rate $1\frac{1}{2}$ times the basic wage, the study cited concluded that overtime from existing staff would cost more than the same

²² Joseph W. Garbarino, "Fringe Benefits and Overtime as Barriers to Expanding Employment", *Industrial and Labor Relations Review*, XVII, No. 3, New York State School of Industrial Labour Relations (April 1964), pp. 426-441.

²³ *Ibid.*, pp. 433-436.

amount of labour obtained through additional hiring. Of course actual situations may vary widely. The study cited included two assumptions that are unlikely to have universal application: (a) that additional hirings will not affect the wage rate and (b) that there are no turnover costs. However, these may be considered a reasonable approximation in cases where expansion is peculiar to the plant or to a particular sector of the economy.²⁴

It is conceivable that the firm would prefer overtime even where the comparative costs favour additional hirings. This could happen if the firm anticipates large employee-related (as opposed to earnings-related) fringe benefits in future legislation or collective agreements.

Supply of Multiple Jobholders

A worker who is “fully employed” on his principal job (in the sense that his marginal rate of substitution between work and leisure equals his wage for the last hour worked) will not seek additional work unless in a second job with a higher hourly wage rate. An “over-employed” worker has even less cause for seeking a second job unless at an hourly wage sufficiently high to compensate for the difference between his marginal rate of substitution (of work versus leisure) and the wage rate in his principal job.²⁵ An “under-employed” worker, on the other hand, is prepared to work more hours than are available to him at the ongoing wage. He would, therefore, be willing to work even at a lower wage in a second job.

To the extent that the motivation is economic, moonlighting would have the following major determinants:

1. Opportunity: The factors that favour a person in finding his first job also, in general, favour him in finding a second job. The multiple jobholder tends either to possess some skill in short supply (e.g. professional consultants) or to be willing to accept a lower price for his services than the going rate (e.g. household services such as plumbing, carpentry, moving, painting, and electrical repairs).
2. Flexibility of work schedules: Flexible schedules for both the primary and the secondary job are an important determinant of availability for work on the second job. The chances improve considerably where the primary occupation is one such as farming or truck- or taxi-driving which often permits the taking on of additional work during the day.
3. Part-time work: It is important that the secondary work be available on a part-time basis. A majority of moonlighters work less than 15 hours a week on their second jobs. This is one of the reasons why most of the secondary jobs (other than self-employment) are in the service sector and relatively few are in manufacturing.

²⁴ If this particular plant or sector employs a specific type of labour which is in short supply in spite of overall unemployment, the firm may have to incur sizeable wage and turnover costs.

²⁵ However, non-pecuniary circumstances can, and do, cause a worker to accept a secondary job with a lower wage but higher job satisfaction.

4. Availability of overtime: Given a choice between overtime and moonlighting, most workers would choose the former. It generally carries premium pay, whereas moonlighting frequently entails accepting a second job at a lower wage. Moonlighting may also involve moving from one job location to another which means commuting time and expense. And finally, overtime may be accepted without fear of social disapproval from either employers or unions which is not the case for moonlighting.

Demand for Moonlighters

The demand side of multiple jobholding has received little attention from economic theorists. Unlike overtime, the "demand" for moonlighting is very difficult to separate from that of part-time or odd-hours workers in general. Moreover, only a part of the demand for multiple jobholders stems from business firms, whereas overtime is wholly created by them. Therefore, one can only point to a few factors that determine the demand for moonlighters in a general way.

Since much of the moonlighting is of a part-time nature the dual jobholders are, to some extent, competing against part-time and casual workers. This would be particularly true of unskilled job sectors such as in retail services. Therefore, the demand for moonlighters might be adversely affected by say, a higher influx of married women and students into the part-time labour market.

Another consequence of the part-time character of the bulk of moonlighting is that its demand will increase with the expansion of industries such as trade which offer opportunities for part-time work.

Finally, the demand for moonlighters would depend upon the difference in the wage rate for regular workers and that of the moonlighter—the greater this difference, the higher would be the demand for moonlighting.

CHAPTER V

OVERTIME WORKERS

Overtime was the second largest category of long-hours workers in the 1967 survey—a total of 695,000 persons, as compared to the 1½ million who reported usually working more than 40 hours.

To qualify as an overtime worker the respondent had to be an employee and he had to be working more than his usual workweek on his regular job. Thus the category excludes the self-employed who put in long hours that week and many paid workers whose long hours are regarded as usual. On the other hand, some persons working less than 40 hours would be counted as overtime workers.

The number of overtime workers was several times the number of multiple jobholders (to be discussed in the next chapter). However, the former appear to have achieved greater acceptability and caused less public controversy than the latter.

Table 15 presents the summary statistics from the 1967 survey. Overtime workers made up 11% of all paid workers and a somewhat higher proportion if part-time workers were to be excluded from the total. Nearly half of the overtime workers did not get premium pay for additional work.

Comparisons with U.S. data suggest that premium rates are much more widely used in that country in compensating overtime workers. According to Table 8, Canadian and American workers have a similar pattern of hours

TABLE 15. Overtime Workers and Premium Paid Workers by Sex for Week Ending June 17, 1967, Canada

		Both Sexes	Male	Female
Worked overtime.....	'000	695	592	103
With premium pay.....	"	360	320	40
Without premium pay	"	335	272	63
Overtime workers as per cent of all paid workers	%	11.3	14.3	5.1
As per cent of full-time (worked 35 hours or more) workers	%	13.3	15.6	6.6
Overtime with premium pay as per cent of persons working 41 hours and over	%	19.5	20.9	12.6

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

worked. Yet only one in five Canadians working 41 hours or more received premium pay as compared to two in five for the American workers.²⁶ Thus, in June 1967 a Canadian working more than a 40-hour week had only half as much chance of being paid a premium rate as his American counterpart.

Table 15 also gives overtime rates (overtime workers as a percentage of total paid workers) separately for men and women. A male employee was nearly three times as likely to be working overtime as a female employee. Confining the comparison to full-time workers only, we find that 7% of the women worked overtime as compared to 16% of the men.

Not only were male workers more likely to work overtime, they were also more likely to be paid at a premium rate: 54% of the male overtime workers received premium pay as compared to only 38% of the females.

Usual Workweek and Overtime

The likelihood of a person working overtime increased with the usual hours of work at the principal job. A person who usually worked more than 48 hours was nearly twice as likely to work overtime as one who worked less than 40 hours (Table 16). This apparently curious phenomenon can be at least partially explained by the fact that occupations with long hours tend to be outside both collective bargaining and legislation. As has been shown in Chapter III, long-hours workers are heavily represented at the managerial and professional level and also, at the other end, by sales and service occupations.

An examination of "premium paid" rates tends to confirm this explanation. As shown in Table 16, a premium paid rate represents the number

²⁶ John Fenlon, "Patterns in Overtime Hours and Premium Pay", *Monthly Labor Review*, XCII, No. 10, U.S. Department of Labor (October 1969), p. 45.

TABLE 16. Overtime and Premium Paid Rates of Paid Workers at Principal Job, by Sex, for Week Ending June 17, 1967, Canada

Usual hours worked at principal job	Male		Female		Both sexes	
	Overtime ¹ rate	Premium ² paid rate	Overtime ¹ rate	Premium ² paid rate	Overtime ¹ rate	Premium ² paid rate
	per cent					
40 hours or less.....	12.8	61.8	4.6	42.5	9.7	58.4
41-48 hours	17.4	48.8	8.4	31.3	15.5	46.8
49 hours or more	18.6	30.5	8.6	--	17.2	29.4

¹ Overtime workers as a percentage of paid workers.

² Premium pay recipients as a percentage of overtime workers.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

receiving premium pay as a per cent of all overtime workers in the group. We find that, for persons who usually worked 40 hours or less, the premium paid rate was 58% which is approximately twice as high as the rate for persons usually working 49 hours or more. This suggests that, for one reason or another, workers with very long normal hours tend to be excluded from collective agreements and, hence, from premium pay.

The fact emerges that people who work the longest—that is, work overtime in addition to an already long workweek—are also those least likely to be paid a premium for the extra hours. Workers in the long-hours occupations and industries might be seen as a pool which, in any week, will contain persons working longer than normal hours without being paid at a premium rate.

Personal Characteristics

The proportion of overtime workers varied substantially with age, sex and marital status. Men showed a higher overtime rate than women in all age groups and also a higher proportion receiving premium pay in all age groups except teenagers (Table 17).

Men in the age group 25-34 showed the highest overtime rate and, together with the 35-44 age group, accounted for more than half of all overtime workers. The rate was the lowest for teenagers, rose sharply to a peak in the 25-34 span and declined gradually thereafter.

Higher rates for men in the prime working years suggest economic motivation for overtime work. For a typical man, the late twenties and early thirties is a time of family formation with acute financial pressures, in some cases aggravated by the wife's withdrawal from the labour force. It is also probable that men in this age group have a greater capacity to work longer and possibly a greater opportunity. The decline in the overtime rates of older men could be as much due to the unavailability of extra hours of work and diminishing skills and energy as to the absence of strong economic motivation.

The pattern of female overtime by age is similar to the male. The rate rises from a low of 4% for teenagers to a high of 6% for the 25-34 years group, declining steadily thereafter.

The proportion of overtime workers receiving premium pay is less sensitive to age and sex than is the overtime rate. Still, fewer female overtime workers in all age groups receive premium pay compared to men. This difference is particularly marked in the age groups 25-34 and 45 and over. Both male and female workers aged 45 years and over were less likely to receive premium pay than younger workers.

It is somewhat surprising that the proportion of teenage workers receiving premium pay was not lower than that of older workers. It might have been expected that they would be less likely to obtain overtime work with premium pay.

TABLE 17. Overtime and Premium Paid Rates for Paid Workers for Week Ending June 17, 1967, by Age and Sex, Canada

Age group	Overtime rate			Premium rate		
	Male	Female	Both sexes	Male	Female	Both sexes
14-19 years	6.8	3.9	5.5	52.0	58.3	54.1
20-24 "	14.2	4.5	10.5	62.1	44.4	58.5
25-34 "	18.1	6.0	14.8	56.8	31.8	54.3
35-44 "	15.5	5.6	12.6	52.4	50.0	52.1
45-54 "	14.8	5.4	11.7	47.2	31.6	45.2
55 years and over	9.9	5.0	8.6	48.1	20.2	45.3
All ages	14.3	5.1	11.3	54.1	38.8	51.8

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

TABLE 18. Overtime Rates for Paid Workers by Age, Sex and Marital Status for Week Ending June 17, 1967, Canada

Age group	Male		Female		Both sexes	
	Married	Others	Married	Others	Married	Others
14-19 years	--	6.8	--	4.4	--	5.8
20-24 "	22.3	13.1	--	5.1	14.9	9.9
25-44 "	18.1	11.4	5.0	8.4	14.7	9.7
45-64 "	12.4	9.5	3.7	11.7	10.3	8.0
65 years and over	--	--	--	--	--	--
All ages	15.7	10.1	4.5	5.9	12.7	8.2

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

A study of overtime rates by marital status supplies further evidence of economic motivation. The rate for married men was higher in the aggregate as well as in each age group. Married workers in the age group 20-24 years showed the highest overtime rate followed by those in the 25-44 age group.

Married female workers showed a lower overtime rate relative to single and formerly married women. This finding holds in the aggregate as well as for each age group. The highest overtime rate was shown by the currently unmarried women (i.e. single, divorced, separated and widowed) between 25 and 44 years of age. Many women in this group can be presumed to be supporting a family and subject to the same pressures as a married man, while single women without a family to support are relatively free of the constraints and responsibilities of housekeeping.

Overtime by Occupation and Industry

Overtime rates by broad occupational groups are shown in Table 19. The highest rate, 17%, occurs in the managerial group which, as noted in Chapter III, also reported "usual" hours that were above the average. "Overtime" in its accustomed meaning is perhaps not really applicable in the managerial case, but they were picked up as overtime workers in the survey because they were working beyond usual hours. The number of managers receiving premium pay was very small. It is evident that managers, as a group, include a large number working long hours, whether usually or on occasion, and doubtless such factors as responsibility, competition, desire for advancement and fear of failure play a larger role than overtime pay for extra hours worked.

Professional and technical workers showed the same overtime and premium pay patterns as the managerial group. It may be assumed that, by and large, similar motivational factors are involved in the case of many professionals such as accountants, scientists and teachers.

Clerical, service and recreational workers registered the lowest overtime rate—less than 6%. Work of this kind is generally less subject to fluctuations than work in production or assembly and the fluctuations which do occur may often be anticipated and planned for. If more staff is needed, employers may find it cheaper to hire part-time workers rather than use existing staff more intensively. Workers in these groups tend to be easily hired and trained. Another contributing factor may be the emergence of agencies providing temporary office workers in most big cities. Also on the supply side, clerical and service occupations contain more female workers than most and women are probably less interested in, or less available for, extra hours than men.

Sales occupations, too, had a low overtime rate. This category consists of basically two types of workers: (a) salesmen and women in retail outlets such as department stores and supermarkets, and (b) commercial travellers, sales personnel in automobile dealerships, insurance, stocks, mutual funds, etc. Most workers of the first type either work a normal full-time week or part-time, although some of them, particularly in the smaller communities, may be presumed to be regularly working long hours. Workers of the second type tend to have long and unregulated hours of work. Many work on a commission basis, or a salary plus commission, and the incentive of premium pay is therefore less important.

TABLE 19. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Occupation, Canada

Occupation	Total	Worked overtime	Received premium pay	Overtime rate	Premium paid rate
	'000			per cent	
White collar	2,654	283	73	10.7	25.8
Managerial	398	69	--	17.3	--
Professional and technical	826	117	20	14.2	17.1
Clerical	978	59	35	6.0	59.3
Sales	452	38	10	8.4	26.3
Service and recreation	785	39	19	5.0	48.7
Transport and communication	377	56	35	14.9	62.5
Blue collar workers ¹	2,154	302	231	14.0	76.5
Primary workers ²	189	14	--	7.4	--
Totals	6,158	695	360	11.3	51.8

¹ Includes craftsmen, production process and related workers, miners, labourers and unskilled workers.

² Includes farmers and farm workers, loggers and related workers, fishermen, trappers and hunters, quarrymen and related workers.

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

TABLE 20. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Industry, Canada

Industry	Total	Overtime workers	Received premium pay	Overtime rate	Premium paid rate
	'000			per cent	
Agriculture, fishing and forestry	195	14	--	7.2	--
Mining and manufacturing	1,762	252	178	14.3	70.6
Construction	396	61	36	15.4	59.0
Transportation, communication and other utilities	608	81	52	13.3	64.2
Trade, finance and other services ¹	3,196	288	90	9.0	31.3
Totals	6,158	695	360	11.3	51.8

¹ Includes insurance, real estate, community, business and personal services, and public administration.

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Blue collar workers, a category which covers most workers in mining, construction and manufacturing, showed the highest proportion of premium pay receivers and an above average overtime rate. Roughly one third of all paid workers fall into this category. Yet nearly two thirds of all workers receiving premium pay and over 40% of all overtime workers were blue collar.

Overtime and premium paid rates by industries are shown in Table 20. Generally speaking, the industries fall into two groups. Relatively high overtime and premium paid rates were noted in mining, manufacturing, construction and transportation. Mining and manufacturing alone, while constituting less than 30% of all paid workers, accounted for 36% of those working overtime and half of all workers receiving premium pay. The primary industries and the most tertiary groups were the ones with lower proportions.

To summarize the occupation-industry findings, paid workers may be divided into four broad categories. The first of these contains managers and professionals in all industries, many of whom prefer working longer hours or whose responsibilities require them to do so. These occupational groups show high overtime but low premium paid rates. In a similar position would be salesmen and women in trade and other industries whose earnings are related to volume of sales and who, therefore, have a built-in incentive for working long hours.

In the second category are blue collar workers in manufacturing, mining, construction and public utilities who are usually covered by union-negotiated contracts which generally stipulate a 5-day, 40-hour week and overtime with premium pay for any work beyond that limit. The blue collar group shows a relatively high incidence of overtime work paid at a premium rate.

The third category consists of clerical occupations and workers in the low paid service occupations such as waitresses and maids. They are characterized by a majority of female workers, many of whom have a part-time or intermittent participation in the labour force (and presumably include a significant proportion of teenage workers as well).

The last broad group would contain poorly paid workers in industries and occupations with traditionally long hours which lie outside the jurisdiction of collective bargaining. These workers have long standard hours and they may also work overtime without receiving premium pay. These would include paid workers on farms or in stores and small firms of various types. These small firms are found in most sectors including manufacturing. Much of the future reduction in the regular working hours, perhaps accompanied by greater use of overtime with premium pay, can be hoped for among these workers.

It should be borne in mind that the above categories were created on a very rough basis and they are not characterized by complete homogeneity. The data are too aggregated to make a precise judgement as to which

category an occupation or industry belongs. These broad groupings contain many sub-groups whose behaviour can be quite different—even contradictory—to the broad category in which they are included.

Overtime and Work Schedules

Do paid workers who usually work at night and on weekends differ in their overtime behaviour from those who usually work on weekdays only? It may be hypothesized that those who work at night and on weekends have a greater economic motivation in as much as they are willing to endure the inconvenience of shift work for the higher pay generally associated with it. Table 21 seems to support this hypothesis. It is seen that persons working during the daytime had an overtime rate of only 9% as compared to 14% among those who usually worked nights and/or weekends. The overtime rate was further observed to be the highest—16.6%—among those who usually worked both at night and on Saturdays, followed by those who usually worked both at night and on Saturdays, followed by those who usually worked at night only (15.8%) and on Saturdays only (13.5%).

TABLE 21. Overtime Rates by Usual Time of Work by Sex for Paid Workers for Week Ending June 17, 1967, Canada

Usual time of work	Male		Female		Both sexes	
	Number	Rate	Number	Rate	Number	Rate
	'000	%	'000	%	'000	%
Nights.....	50	18.5	--	--	55	15.8
Saturdays	122	16.3	16	5.9	138	13.5
Nights and Saturdays	45	20.5	--	--	50	16.6
Saturdays and Sundays.....	33	18.6	--	--	39	12.4
Nights, Saturdays and Sundays	53	16.0	--	--	62	12.5
Not nights, Saturdays or Sun- days	283	12.0	60	4.7	343	9.5
Totals.....	592	14.3	103	5.1	695	11.3

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Regional Distribution

Overtime and premium paid rates by region are shown in Table 22 below. The overtime rates showed only slight variations in this respect and the premium paid rates even less, with the exception of the province of Quebec. This province reported a relatively low overtime rate, 9.7%, and a relatively high premium paid rate. This strange result is probably due, at least partly, to a combination of two factors, namely, the definition of overtime adopted in the survey and the circumstances surrounding Expo 67. According to the survey definition, overtime workers were those working longer than their usual hours in the survey week. But the survey week

occurred shortly after the opening of Expo which still involved some new construction activity and which had been calling forth prodigious efforts from Quebec workers for some months past. If, as seems likely, a large number of workers had been working overtime for some considerable period, they would fail to report themselves as working overtime in the survey week.

TABLE 22. Overtime and Premium Paid Rates of Paid Workers for Week Ending June 17, 1967, by Region

Region	Total	Worked overtime	Received premium pay	Overtime rate	Premium paid rate
	'000			per cent	
Atlantic	512	56	25	10.9	44.6
Quebec	1,744	169	110	9.7	65.1
Ontario	2,389	272	133	11.4	48.9
Prairies	908	126	58	13.9	46.0
British Columbia	606	72	35	11.9	48.6
Canada	6,158	695	360	11.3	51.8

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Overtime and Unemployment

Both overtime and multiple jobholding may be thought of as possible obstacles in the way of creating more employment. To be strictly accurate, the question is not one of creating more employment but more jobs; in other words, of redistributing the demand for man-hours (at a given wage rate) among more people.

Employers choose to extend the hours of existing employees at a premium rate when it is cheaper than hiring and training new workers. It has been observed that there is very little overtime in industries in which part-time workers are easily available and jobs require little or no training, such as retail trade and restaurants. In some occupations the employer may also be prevented from additional hiring because of a restrictive contract with the union.

It is quite likely that further restrictions on overtime work in the form of an enhanced premium rate or a reduction in the statutory maximum of overtime hours would lead to the creation of more jobs. However, the resulting increase in the marginal labour costs would also adversely affect the demand for labour.

CHAPTER VI

MULTIPLE JOBHOLDERS

The last and numerically the least important group working long hours consists of those working at more than one job. According to the 1967 survey, multiple jobholders numbered 222,000 which was less than a third of those reporting overtime and a mere 3% of the total employed. As mentioned previously, there is reason to believe that moonlighting has been under-reported due to factors such as social disapproval, but the amount of under-reporting is unknown.

Table 23 compares numbers and rates of multiple jobholding in June 1967 with an earlier Canadian survey in 1961 and with the U.S. in May 1966. In Canada the percentage of multiple jobholders increased from 2.2% in 1961 to 3.1% in 1967—the latter compared with a rate of 5% in the United States.²⁷ The U.S. figure would have been higher still if the definition had included self-employed in more than one job as in the Canadian survey.

²⁷ Harvey R. Hamle, *op. cit.*, p. 18.

TABLE 23. Employed by Number of Jobs and Sex in July 1961 and June 1967, Canada, and May 1966, United States

	Male			Female	
	Canada		United States	Canada	
	1961	1967	1966	1961	1967
	'000				
With one job only	4, 554	4, 834	44, 540	1, 694	2, 209
With two or more jobs:					
Number	127	192	3, 046	14	30
Rate %	2.7	3.8	6.4	0.8	1.3
Total employed	4, 681	5, 025	47, 586	1, 708	2, 239
	Female		Both sexes		
	United States		Canada		United States
	1966		1961	1967	1966
	'000				
With one job only	25, 588	6, 248	7, 043	70, 128	
With two or more jobs:					
Number	590	141	222	3, 636	
Rate %	2.3	2.2	3.1	4.9	
Total employed	26, 178	6, 389	7, 265	73, 764	

Sources: See: *Multiple Jobholding in Canada 1960-61*, a joint study by Statistics Canada and the Department of Labour (Ottawa:Information Canada); *Monthly Labor Review*, XC, No. 10, U.S. Department of Labor (October 1967).

Personal Characteristics

Tables 24 and 25 summarize the personal characteristics of multiple jobholders. Generally speaking, they have much the same characteristics as overtime workers. That is, they are predominantly male with a male worker three times as likely to moonlight as a female; the moonlighting rate is higher for married males who accounted for nearly three quarters of all moonlighters although they account for less than half of all workers; and the peak incidence occurs in the age groups between 25 and 44. All this provides evidence of a strong element of economic motivation, as would be expected, and a close relationship to family circumstances.

TABLE 24. Multiple Jobholders by Sex and Marital Status for Week Ending June 17, 1967, Canada

Marital status	Male		Female		Both sexes	
	Number	Rate ¹	Number	Rate ¹	Number	Rate ¹
	'000	%	'000	%	'000	%
Married	159	4.3	16	1.3	175	3.6
Single and others	33	2.5	14	1.3	47	3.6
Totals	192	3.8	30	1.3	222	3.1

¹ The multiple jobholding rate is the per cent of employed persons holding two or more jobs.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Youth and vigour would seem to be important attributes in the demanding circumstances of holding down two jobs. Although the rate of multiple jobholding is low for the very young, presumably due to their part-time and part-year attachment to the labour force, it rises to a peak between 25 and 34 and declines only fractionally after age 34. Indeed, the rate for persons 55-64 years is not far below those of workers in their prime ages.

Persons classed as "self-employed" on their principal jobs had a higher rate of multiple jobholding than the wage and salaried employees (Table 26). In fact, self-employment* plays a greater role in moonlighting than is suggested by this table which supplies class of worker status for the first job only. The 16% classified as self-employed on the first job may be compared with the results of the 1961 survey which found that 56% of all moonlighters were self-employed in one or both jobs. It is unfortunate that the 1967 survey did not collect data on the second job but the United States evidence supports the earlier Canadian survey in that a high proportion are self-employed in the first or second job, or both.

TABLE 25. Multiple Jobholding Rate by Age for Week Ending June 17, 1967

Age	Total employed	Holding 2 or more jobs	Multiple jobholding rate
	'000		%
14-19 years	750	16	2.1
20-24 "	1,064	26	2.4
25-34 "	1,507	55	3.7
35-44 "	1,582	55	3.5
45-54 "	1,349	44	3.3
55-64 "	808	23	2.8
65 years and over	205	--	--
All ages	7,265	222	3.1

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

An important attribute of self-employment is flexible hours which facilitate moonlighting, and an opportunity to get started in business by working part-time in it while retaining the security of a regular job. The objective would be to leave the old job once a degree of success in business has been attained.

TABLE 26. Multiple Jobholding by Class of Worker (Primary Job) for Week Ending June 17, 1967

Class of worker (primary job)	Total employed	Holding 2 or more jobs	Multiple jobholding rate
	'000		%
Paid	6,158	184	3.0
Self-employed	907	36	4.0
Unpaid	200	--	--
All classes	7,265	222	3.1

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Occupations and Industries

Tables 27 and 28 give distributions of multiple jobholders by occupation and industry of the principal job. The occupational grouping "transport and communications" showed the highest rate. This group covers such frequently cited moonlighters as postmen and taxi drivers. The postman's regular work day begins and ends early and the job is rather low paid. The taxi driver, on the other hand, is mostly a self-employed person who sets his own hours and it is this flexibility which permits him to work at a second job.

TABLE 27. Multiple Jobholding Rate and Median Annual Income by Occupation, 1967

Occupation	Total employed	Holding 2 jobs or more	Multiple jobholding rate	Median income in 1967
	'000		%	\$
White collar	3,045	72	2.4	
Managerial	675	21	3.1	7,315
Professional and technical	888	23	2.6	6,183
Clerical	995	16	1.6	3,792
Sales	487	12	2.5	3,699
Service and recreation	866	29	3.4	2,652
Transport and communication	406	20	5.0	5,056
Blue collar workers	2,252	74	3.3	
Miners, craftsmen, etc.	1,933	62	3.2	5,329
Labourers	319	12	3.8	3,655
Primary workers (farmers, fishermen, etc.)	698	27	4.0	2,654
All occupations	7,265	222	3.1	

Source: Monthly Labour Force Survey, June 1967, Statistics Canada and *Income Distributions by Size in Canada 1967*, Statistics Canada (Catalogue 13-534) (Ottawa: Information Canada).

Among industries transportation is followed by agriculture, forestry and fishing. Agriculture contains a high proportion of self-employed persons who, as previously mentioned, tend to have flexible work schedules and frequently a strong financial incentive to take a second job. Paid workers on farms also tend to have quite flexible hours enabling them to pick up some other job and their earnings are also low.

**TABLE 28. Multiple Jobholding by Industry for Week Ending
June 17, 1967**

Industry	Total employed	Holding 2 jobs or more	Multiple jobholding rate
	'000	'000	%
Agriculture, forestry, fishing etc.	706	27	3.8
Mines and manufacturing	1,803	53	2.9
Construction	477	16	3.4
Transportation, communication etc.	643	26	4.0
Trade, finance and other services ¹	3,635	101	2.8
All industries	7,265	222	3.1

¹ Includes insurance, real estate, community, business and personal services and public administration.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Agriculture plays a more important role in dual jobholding than is revealed in these tables due to its disproportionate share in second jobs. Many non-farmers in the rural communities probably also find part-time work on farms at the peak of seasonal activities. Once again evidence has to be drawn from the earlier study. According to the 1961 Canadian survey 35% of the multiple jobholders were farmers or farm workers on one or both jobs. This compared with their 11% share of all employed persons.

Unskilled workers (labourers) were another group with a relatively high proportion of moonlighters (Table 27). This group is scattered among many industries and is characterized by the second lowest²⁸ median income of all non-agricultural occupations. Like agricultural workers they have a strong financial motive for seeking extra earnings through another job. There is also a possibility that some of these workers were employed at more than one casual job during the survey week which resulted in their enumeration as multiple jobholders even though they actually worked for 40 hours or less.

The construction industry showed an above average moonlighting rate which, to some extent, reflects that many construction workers have to work for more than one employer for a regular week's work. They are also frequently known to work as self-employed in their second jobs.

²⁸ The median income of "service and recreation" workers was lower than that of labourers. However, "service and recreation" includes a much higher proportion of part-time female workers. For males labourers had the lowest median income.

Workers in mining and manufacturing industries followed the national average pattern in multiple jobholding. Blue collar workers in manufacturing as well as in other industries had a somewhat above average rate and accounted for a third of all multiple jobholders.

To summarize these findings, it appears that occupations and industries with relatively high rates of multiple jobholding have one or more of the following characteristics for a significant number of their workers: (1) self-employment; (2) shift work; (3) flexible work schedules; and (4) low income.

Moonlighting and Hours of Work

It is frequently assumed that a positive correlation exists between moonlighting and short hours. In other words, persons fortunate enough to have a short workweek are believed likely to seek additional employment instead of enjoying more leisure. Survey data present some confirmation of this belief in that the highest rate of multiple jobholding obtained for part-time workers—those working 15 to 34 hours in a principal job (see Table 29). For persons working above 44 hours on the principal job, the rate declined as the hours of work increased.

TABLE 29. Multiple Jobholding Rate and Average Hours Worked at Second Job by Hours of Work at Principal Job for Week Ending June 17, 1967

Hours worked at principal job	Total employed	Holding 2 jobs or more	Multiple jobholding rate	Average hours worked at second job
	'000		%	
1-14 hours	320	--	--	--
15-24 "	376	16	4.3	11.3
25-34 "	333	18	5.4	16.3
35-39 "	851	17	2.0	13.1
40 "	2,812	87	3.1	15.4
41-44 "	375	15	4.0	16.5
45-54 "	1,186	39	3.3	14.6
55 hours and over	1,011	23	2.3	15.2
Totals	7,265	222	3.1	15.2

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

But the association is not always of this kind. Within the 35-44 hours group, which accounts for nearly three quarters of all full-time workers, we find that the shorter hours group (35-39) had a lower multiple jobholding rate than the group working 40 hours, while the longer hours group (41-44) was associated with a higher rate.

Table 29 also provides information on average hours on the second job by hours worked on the first job. It has some disturbing information about the large number of Canadians who work very long hours: 23,000 persons working 55 hours and over in their principal job also worked an average of 15 hours in their second jobs; similarly, 39,000 persons working between 45 and 54 hours on their principal job also worked nearly 15 hours, on the average, in their second jobs.

One also observes a lack of any systematic relationship between hours of work at the principal and the second job. For those working 15-24 hours at the principal job, the average hours in the second were 11.3; yet we find an average of 15.2 hours in the second job for those working 55 hours and over at the principal job. This probably indicates that once a person has decided to take an additional job, the time spent on it depends more upon the nature of the opportunity than the time spent on the principal job.

Multiple Jobholding and Shift Work

Multiple jobholding rates by usual time of work at the principal job are traced in Table 30. Persons working on weekdays only had a lower rate of moonlighting than those whose schedule included weekends and/or nights. In particular, those working nights at the principal job held a second job more frequently than others.

TABLE 30. Multiple Jobholding Rate for Paid Workers by Usual Time of Work for Week Ending June 17, 1967

Usual time of work	Total workers	Holding 2 jobs or more	Multiple jobholding rate
	'000		%
Nights	348	14	4.0
Saturdays	1,021	36	3.5
Sundays	21	--	--
Nights and Saturdays	301	12	4.0
Nights and Sundays	27	--	--
Saturdays and Sundays	314	10	3.2
Nights, Saturdays and Sundays	496	14	2.8
Not nights, Saturdays or Sundays	3,629	94	2.6
Totals	6,158	184	3.0

-- Amount too small to be expressed.

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

The above findings suggest that those working on weekends and/or nights on their primary job find more spare time during weekdays to devote to another job and more opportunities to do so. The concept of a person working nights on the principal job and during the day at the second is quite opposite to the popular notion of a regular job during the day and a supplementary one at night²⁹ (which led to the coining of the phrase "moonlighter").

Persons who worked only on weekdays at their principal job (although their rate is lower) accounted for 94,000 or half of all multiple jobholders; this compares with their share of 60% of all workers.

Regional Distribution

Multiple jobholding rates for the five geographic regions are shown in Table 31. The highest rate was observed in the Prairie Region—the three provinces there containing nearly one fourth of all moonlighters while constituting 17% of the total employed. The higher rate in the Prairies seems to reflect the relatively high proportion of farmers and farm workers.

²⁹ Although the question sought information on work schedule for the principal job there is a possibility that some respondents supplied this information about the second job.

**TABLE 31. Multiple Jobholders by Region for Week Ending
June 17, 1967**

Region	Total employed	Holding 2 jobs or more	Multiple jobholding rate
	'000		%
Atlantic	600	14	2.3
Quebec	2,034	47	2.3
Ontario	2,703	86	3.2
Prairies	1,231	52	4.2
British Columbia	696	22	3.2
Canada	7,265	222	3.1

Source: Monthly Labour Force Survey, June 1967, Statistics Canada.

Ontario and British Columbia ranked next with a multiple jobholding rate of 3.2%. These two provinces are noted for better economic opportunities which would include opportunities for moonlighting. Lack of opportunities, on the other hand, might be responsible for the lower rates in both Quebec and the Atlantic Provinces.

Comparison with 1961

The number of multiple jobholders increased by nearly 60% between July 1961 and June 1967 and the fraction of total employment from 2.2%³⁰ to 3.1%. The increase would probably have been greater if the agricultural labour force had not declined markedly during this period (from 11.4% of the labour force to 7.6%). Whether the higher rate in 1967 reflects a trend or the result of a comparatively lower unemployment rate cannot be ascertained due to the lack of a sufficient number of observations. However, preliminary results from the June 1969 monthly Labour Force Survey show that less than 2% of employed persons held more than one job during that month when the unemployment rate was 4.6%, up nearly 1% from June 1967.

The proportion of female moonlighters increased from 10% to 14% of the total. Married men continued to form the bulk of the dual jobholders although their share of the total declined slightly from 77% to 72%. Men in the age group 25-44 formed a majority in both 1961 and 1967.

The importance of agriculture also declined, as would be expected — 11% of moonlighters with their primary job in agriculture in 1967 as against 19% in 1961. This was due once again to the reduced importance of agriculture as an employer of labour. The rate of multiple jobholding in agricultural occupations remained constant. The proportion of moonlighters with a blue collar principal job increased from 33% to 41% while that of the white collar workers remained nearly unchanged. The proportion declined in agriculture and construction but rose in other sectors, particularly in transportation and communication.

Multiple Jobholding and Unemployment

Multiple jobholding is frequently criticized on the grounds of equity. It is considered unfair that one section of the labour force should hold two jobs while another is unemployed due to a lack of sufficient job opportunities. To determine whether or not this view has implications for public policy one really needs information on second jobs which, as stated, was not collected in the 1967 survey. However, data that are available are sufficient to cast some doubt on the amount of potential benefit to the unemployed.

In the first place, almost all moonlighting activity is of a part-time nature. In June 1967, less than 5% of all multiple jobholders worked for more than 35 hours on their second jobs. On the other hand, very few unemployed persons seek part-time work; their number in the survey week was 23,000 — less than 10% of all unemployed persons.

³⁰ The average rate of multiple jobholding in 1960-61 was 2.6% on the basis of four quarterly surveys conducted in October 1960, January, April and July 1961. However, the rate of 2.2% in July 1961 seems to be the most comparable figure with June 1967.

Secondly, it is clear from the earlier Canadian survey as well as from surveys of multiple jobholders in the United States that a majority of moonlighters are self-employed on one or both jobs. While such a job provides a supplementary source of income, it is not certain that the self-employed are in direct competition with the unemployed for the work they are performing. Indeed, it seems rather unlikely unless the unemployed have the same skills.

CHAPTER VII

SUMMARY AND CONCLUSIONS

While the 8-hour day and the 5-day week have constituted a standard workweek in Canada for many years, there remains a sizeable minority in the labour force which works longer. A 1967 survey showed most of this group working at least 45 hours and a high proportion more than 55 hours in the reference week.

Defined as persons working more than a 40-hour week, "long-hours workers" in the survey included persons working overtime or holding a second job. But by far the largest sub-group was the 1.5 million paid workers who reported that they "usually" worked more than 40 hours. The survey results are in sharp contrast to collective bargaining agreements — almost all of which prescribe a ceiling of 40 hours or less — and to government legislation on hours. Federal legislation (covering workers in industries under federal jurisdiction) imposes a 40 hour limit and most provincial legislation uses either a 40 or a 44 hour maximum. While it is reasonably assumed that some persons working long hours do so through choice, the very large number of such workers suggests there is a substantial segment of the work force which has not benefited, directly or indirectly, from collective bargaining, and which also lies beyond the reach of government restrictions on hours.

Overtime workers — defined as persons working more than usual hours on their principal job in the survey week — were less than half the size of the group reporting that they "usually" worked more than 40 hours. Of the overtime workers only half received any premium pay for their work. The other half were presumably compensated at their regular wage rate or were not compensated at all.

Moonlighting did not seem to play a very important part in long-hours work. The number of multiple jobholders — both paid workers and self-employed — was 222,000 which is less than one third of the paid workers reporting overtime. Moreover, many of them would have been counted as long-hours workers without the second job because they worked 41 hours or more on their principal job.

Moonlighting appears to be less prevalent in Canada than in the United States. In the 1967 survey multiple jobholders accounted for 3.1% of total employment; in the United States the rate is generally over 5%. Moreover, the Canadian rate for 1967 applies to a period of low unemployment. Other Canadian surveys conducted when the unemployment rate was higher — in 1961 and 1969 — both showed multiple jobholding rates in the neighbourhood of 2%.

Workers with long hours — whether regularly working long hours, working overtime or holding a second job — shared some common characteristics. They were predominantly male, married and in the 25-44 age group.

Among industry sectors, agriculture showed the highest proportion of employees reporting that they usually worked long hours. (Since only employees were questioned concerning usual hours, the survey does not reveal the extent of long-hours work among farmers who make up the bulk labour force in agriculture. As would be expected, a high percentage of farmers reported long hours in the survey week, which occurred in June.) Fishing and forestry also showed a high proportion of long-hours workers.

Outside the primary sector the highest proportions of long-hours workers were found in trade and construction—roughly one third in each case. Service industries and the combined category “transportation, communications and other utilities” ranked fairly high and the latter claimed the highest rate for multiple jobholding of any industry.

The incidence of overtime work followed a somewhat different pattern. The construction industry had the highest proportion of overtime workers, closely followed by the combined categories “mining and manufacturing” and “transportation, communications and other utilities”. An above-average proportion of overtime workers in all three industries received premium pay.

The relationship between usual hours and incidence of overtime is an interesting one. According to the survey, persons with usual hours of 40 or less (on the principal job) were less likely to be working overtime than persons who usually worked 41 to 48 hours. The incidence of overtime was higher still for persons usually working more than 48 hours. On the other hand, the groups with longer “usual” hours were less likely to be receiving premium pay for overtime.

For multiple jobholding, the results were as expected in that the highest incidence obtained for part-time workers and rates declined for workers with the longest hours on their principal job. However, within the dominant 35 to 44 hours group, it was found that the multiple jobholding rate rose as hours on the principal job increased.

Work schedules also appear to have some bearing on long hours. Persons who usually work on weekdays only tended to work fewer hours than those who usually worked on weekends and/or nights.

A higher proportion of workers in the Atlantic Region, Quebec and the Prairies would be classified as long-hours workers than in Ontario and British Columbia. No significant variation was found in overtime rates with the exception of Quebec whose higher rate probably resulted from the special circumstances surrounding Expo 67.

The Prairie Region showed the highest rate of multiple jobholding (4.2%). This is very close to the rate in the agricultural industry. The Atlantic Provinces and Quebec had rates below the Canadian average, possibly reflecting fewer job opportunities.

Comparison with United States

The proportion of Americans working longer than 40 hours is similar to that of Canadians and the long-hours workers share many characteristics with their Canadian counterparts. They are predominantly prime-age males and are more than proportionally represented in agriculture, fishing and forestry, and in the managerial occupations.

There is, however, a major difference between the two countries in the composition of long-hours workers. "Long hours" in the United States owe less to long standard hours and more to overtime work and multiple jobholding. A higher percentage of Americans receive premium pay. Of the total number who work 41 hours or more, two in five American workers receive premium pay as compared to just one in five in Canada.

One cause of this disparity may be differences in legislation governing hours of work. Most American workers are covered by federal regulations restricting maximum working hours in a week to forty. But working hours in Canada are governed by a multiplicity of federal and provincial legislation with varying coverage and standards. It appears that a much larger proportion of Canadian workers are beyond the reach of effective legislation on standard hours and overtime than is the case in the United States.

Long Hours and Unemployment

This study did not lead to firm conclusions but it does suggest some tentative answers to the question of whether multiple jobholders and overtime workers are denying job opportunities to the unemployed.

The effect of moonlighting does not seem very important. In the first place, many persons with two jobs are working part-time in both jobs and most of the secondary jobs provide only part-time work. Most unemployed persons, on the other hand, are seeking full-time work. Then, too, many of the secondary jobs take the form of self-employment. They are in effect created by the individual concerned and although they might reduce the market for the same product or service offered by others they cannot be said to take away from the existing stock of jobs.

The effects of overtime and of long standard hours are more difficult to assess. On the face of it, stricter statutory maxima on standard hours and wider application should lead to the opening up of additional job opportunities. So should a ban or stricter curbs on overtime—e.g. raising premium pay or lowering the number of hours after which premium rates are paid. But how much extra employment could be created by these means is another question. A sizeable number of long-hours workers are self-employed or in managerial or professional careers for which hours legislation is neither feasible nor desirable. Moreover, there are definite advantages to the employer in using his existing work force more intensively rather than hiring new employees and the effect of tighter overtime requirements is not necessarily to increase the amount of new hiring. While stricter

legislation would increase labour costs it is still possible that the higher costs would be outweighed by the advantages of using overtime. And it is also possible that higher labour costs would have the effect of reducing effective demand for labour. In neither case would new jobs be created.

As noted, the limited body of data examined does not permit a full assessment of the effectiveness of reduced working hours as a means to increase job opportunities to the unemployed. Certain limits have been detected and it seems probable that the possibilities are of a smaller magnitude than is the popular impression. .

There are, of course, other arguments for reducing working hours and in directing attention to the size of the long-hours segment this study might initiate the more exhaustive examination that is needed.

APPENDIX A

Regression Analysis for Cyclical Behaviour of Long-hours Workers

Simple multiple linear regression equations were used to estimate the impact of the unemployment rate on long hours. The basic form of the equations used was:

$$Y = a_0 + a_1T + a_2X + \epsilon$$

where,

Y = Non-agricultural workers working 55 hours and over, 45-54 hours and 41-44 hours respectively,

T = Trend, and

X = Unemployment rate.

a_0 , a_1 , and a_2 are the constant and the regression coefficients for Trend and Unemployment respectively, while ϵ is the term representing random elements. The unemployment series was lagged 3, 2, 1, 0, -1, -2, and -3 months respectively to see if long hours follow or precede unemployment in the economy.

Data

The analysis used seasonally adjusted time-series data from the monthly Labour Force Survey. Regressions involving 55 hours and over and 45-54 hours used monthly observations for the 1953-69 period while those involving 41-44 hours used the 1960-69 period because the earlier data were not tabulated.

The unemployment rate in Canada for all persons in the labour force was used as a measure of X. For long hours (Y), non-agricultural workers who reported working 41 hours and longer in the monthly Labour Force Survey were treated as long-hours workers. However, this group was thought to be too broad to show any meaningful relationships which were likely to be concealed by movements within the group. Therefore, it was decided to measure the effect of unemployment separately for three groups, *viz.*, 41-44 hours, 45-54 hours and 55 hours and over. The series were adjusted for seasonal variations with the application of the same method as is used for adjusting the labour force data.

Results

Tables A 1, A 2, and A 3 give the summary results of the regression analyses relating to 55 hours and over, 45-54 hours and 41-44 hours respectively.

TABLE A 1. Coefficients of Regression Analysis, 55 Hours and Over

Lag	Constant a_0	Time a_1	Unem- ployment a_2	R^2	dw
3 months	329.6 (23.1)	1.4 (23.4)	- 1.1 (0.4)	0.74	1.66
2 months	328.1 (22.8)	1.4 (23.4)	- 0.8 (0.3)	0.74	1.66
1 month	326.8 (22.4)	1.4 (23.4)	- 0.5 (0.2)	0.74	1.66
0 months	324.4 (22.9)	1.4 (23.9)	- 0.5 (0.2)	0.74	1.65
-1 month	323.5 (22.5)	1.4 (23.7)	- 0.4 (0.2)	0.74	1.62
-2 months	315.7 (22.2)	1.4 (24.4)	- 0.9 (0.4)	0.75	1.66
-3 months	313.1 (21.7)	1.4 (24.2)	- 1.3 (0.5)	0.75	1.67

Note: Figures in brackets denote t values.

TABLE A 2. Coefficients of Regression Analysis, 45-54 Hours

Lag	Constant a_0	Time a_1	Unem- ployment a_2	R^2	dw
3 months	1089.1 (51.7)	0.2 (2.7)	- 34.9 (9.3)	0.31	2.03
2 months	1095.4 (52.1)	0.2 (2.6)	- 35.9 (9.6)	0.32	2.06
1 month	1098.7 (51.7)	0.2 (2.5)	- 36.3 (9.6)	0.33	2.12
0 months	1118.0 (55.1)	0.2 (2.1)	- 39.2 (10.8)	0.37	2.09
-1 month	1117.7 (53.9)	0.2 (1.9)	- 38.8 (10.5)	0.35	2.14
-2 months	1120.9 (53.3)	0.1 (1.7)	- 39.1 (10.5)	0.35	2.12
-3 months	1125.1 (52.6)	0.1 (1.5)	- 39.6 (10.5)	0.36	2.10

Note: Figures in brackets denote t values.

TABLE A3. Coefficients of Regression Analysis, 41-44 Hours

Lag	Constant a_0	Time a_1	Unem- ployment a_2	R^2	dw
3 months	330.9 (12.2)	- 0.4 (2.6)	4.2 (0.9)	0.11	1.86
2 months	322.1 (12.1)	- 0.3 (2.4)	5.7 (1.3)	0.13	1.84
1 month	330.6 (12.6)	- 0.4 (2.6)	4.2 (1.0)	0.13	1.84
0 months	348.8 (13.0)	- 0.4 (2.8)	1.0 (0.2)	0.12	1.83
-1 month	347.3 (13.2)	- 0.4 (2.9)	1.3 (0.3)	0.13	1.83
-2 months	343.6 (13.2)	- 0.4 (2.9)	1.9 (0.5)	0.13	1.83
-3 months	346.1 (13.3)	- 0.4 (3.0)	1.6 (0.4)	0.13	1.83

Note: Figures in brackets denote t values.

APPENDIX B

EXPLANATORY NOTE AND DEFINITIONS

This report is based mainly on the data collected in the monthly Labour Force Survey for the week ending June 17, 1967. Data from other labour force surveys as well as the Department of Labour's documents on working conditions were also extensively used.

Scope of Monthly Labour Force Survey

In the monthly Labour Force Survey interviews are carried out in approximately 30,000 households chosen by area sampling methods across the country. The sample used in this survey has been designed to represent all persons in the population 14 years of age and over and residing in Canada with the exception of residents of the Yukon and Northwest Territories, Indians living on reservations, inmates of institutions, and members of the armed forces. These excluded categories amount to about 3% of the population 14 years of age and over. Estimates derived from a sample survey are subject to sampling and other kinds of error. This aspect is discussed further under the heading "Reliability of Estimates".

Questions on Hours Worked in June 1967

The following questions were asked in the survey relating to multiple jobholding and hours of work.

1. How many hours did this person work last week?
2. Did this person work at more than one job last week?
(Include: "OWN BUSINESS" and "Unpaid family work" as well as "Paid work") If so,
3. How many hours did this person work at his PRINCIPAL JOB last week?
4. Was this person marked as a paid worker? If so,
5. Did this person work any OVERTIME hours last week at his PRINCIPAL JOB? If so,
6. Are all overtime hours this person worked included in the hours you said this person worked last week?
7. Did this person get a higher rate of pay for overtime worked last week?
If so,
8. When did the overtime rate start?
41 - 48 hours
49 hours or more
Not covered by above (Explain)
9. At PRINCIPAL JOB how many hours does this person usually work?
40 hours or less
41 - 48 hours
49 hours or more

10. At **PRINCIPAL JOB** does this person usually work
Nights? (6 p.m. to 6 a.m.)
Saturday?
Sunday?

Definitions

The following are definitions of terms used in the Labour Force Survey and employed in this study.

Labour force—The civilian labour force is composed of the civilian non-institutional population 14 years of age and over who, during the reference week, were employed or unemployed.

Employed—The employed include all persons who, during the reference week:

- (a) did any work for pay or profit;
- (b) did any work which contributed to the running of a farm or business operated by a related member of the household; or
- (c) had a job but were not at work because of bad weather, illness, industrial dispute, or vacation, or because they were taking time off for other reasons.

Persons who had jobs but did not work during the reference week and who also looked for work are included in the unemployed as persons without work and seeking work.

Unemployed—The unemployed include all persons who, through the reference week:

- (a) were without work and seeking work, i.e., did no work during the reference week and were looking for work; or would have been looking for work except that they were temporarily ill, were on indefinite or prolonged lay off; or believed no suitable work was available in the community, or
- (b) were temporarily laid off for the full week, i.e., were waiting to be called back to a job from which they had been laid off for less than 30 days.

Reliability of Estimates

Sampling error—The estimates in this report are based on a sample of households. Somewhat different figures might have been taken using the same questionnaires, enumerators, supervisors, processing, etc. This difference is called the sampling error of the estimates. In the design and processing of the Labour Force Survey extensive efforts have been made to minimize the sampling error. The sampling error (expressed as a per cent of the estimate it refers to) is not the same for all estimates; of two estimates the larger one will likely have a smaller per cent sampling error,

and of two estimates of the same size the one referring to a characteristic more evenly distributed across the country will tend to have a smaller per cent sampling variability. Also, estimates relating to age and sex are usually more reliable than other estimates of comparable size.

Non-sampling errors—Errors which are not related to sampling may occur at almost every phase of a survey operation. Enumerators may misunderstand instructions, respondents may make errors in answering questions, the answers may be incorrectly entered on the questionnaires and errors may be introduced in the processing and tabulation of the data. All these errors are called non-sampling errors. Some of the non-sampling errors will usually balance out over a large number of observations but systematically-occurring errors will contribute to biases. Non-sampling errors can be reduced by a careful design of questionnaires, intensive training and supervision of enumerators and a thorough control of the processing operation. In general, the more personal and more subjective inquiries are subject to larger errors. Also, data referring to persons with less stable labour force status will have relatively large non-sampling errors.

TABLE C 1. Percentage of Workers Working 45 Hours and Over in Canada 1952 - 69, Total, Agricultural, Non-agricultural and Paid Workers

Year	45 hours and over			
	All workers	Agricultural	Non-agricultural	Paid workers (non-agricultural)
1952	42.6	77.5	35.2	31.9
1953	39.2	79.0	31.4	27.7
1954	36.5	77.7	28.3	24.6
1955	35.9	77.4	28.5	24.9
1956	35.4	77.5	28.7	25.3
1957	32.8	77.1	26.1	22.7
1958	31.9	74.8	25.8	22.5
1959	31.5	74.1	25.7	22.3
1960	30.3	72.9	24.8	21.3
1961	29.9	71.4	24.7	21.1
1962	29.6	70.3	24.8	21.4
1963	29.4	69.3	25.0	21.6
1964	28.6	66.5	24.7	21.3
1965	27.7	65.6	24.1	21.1
1966	27.2	64.9	24.1	21.2
1967	26.4	62.4	23.4	20.5
1968	24.3	59.7	21.6	18.8
1969	23.6	60.9	20.7	18.0

Source: Monthly Labour Force Survey, Statistics Canada.

**TABLE C 2. Percentage of Workers Working 55 Hours and Over
in Canada, 1952 - 69, Total, Agricultural,
Non-agricultural and Paid Workers**

Year	55 hours and over			
	All workers	Agricul- tural	Non- agricul- tural	Paid workers (non- agricul- tural)
1952	16.7	53.9	8.9	6.6
1953	14.9	51.0	7.8	5.6
1954	14.7	51.8	7.3	5.1
1955	14.1	52.4	7.2	5.0
1956	14.3	54.4	7.9	5.8
1957	14.0	54.0	8.0	5.9
1958	14.1	53.7	8.4	6.3
1959	14.1	54.3	8.7	6.4
1960	13.6	53.2	8.5	6.2
1961	13.6	53.4	8.6	6.2
1962	13.3	53.0	8.6	6.3
1963	13.2	52.6	8.8	6.3
1964	12.7	51.0	8.7	6.3
1965	12.3	51.0	8.6	6.5
1966	12.0	49.8	8.9	6.7
1967	11.5	48.1	8.5	6.3
1968	10.4	45.2	7.7	5.7
1969	10.4	47.3	7.6	5.7

Source: Monthly Labour Force Survey, Statistics Canada.

